Human Resource Management
Current Perspectives

Nina Clarke

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Contents

The use of human resource information systems in two retail organisations in the Western Cape, South Africa

Authors:
Emmanuel Udekwe[1]
Andre C. de la Harpe[1] [iD]

Affiliations:
[1]Graduate Centre for Management, Cape Peninsula University of Technology, South Africa

Corresponding author:
Andre de la Harpe,
delaharpea@cput.ac.za

Orientation: The retail industry is the largest contributor to employment and the gross domestic product (GDP) in the Western Cape, South Africa. The management of human resources in this very competitive industry is a high priority for all retailers. The successful implementation, maintenance and use of human resource information systems (HRISs) are an integral part of many retailers.

Research purpose: Human resource information systems are difficult to implement and maintain, and as a result, organisations cannot effectively utilise these systems to their benefit. The purpose of this paper is to explore the factors affecting the implementation, maintenance and use of HRISs in two retail organisations in the Western Cape.

Motivation of study: Many retailers find it difficult to apply and utilise HRISs to their benefit and to the systems' full potential. This study explores the challenges retailers are facing when implementing, maintaining and using HRISs.

Research design, approach and method: Multiple case studies were used to conduct the research. Data were collected through a semi-structured questionnaire using interviews. Twenty-one interviews were conducted in the two retail companies to gain an understanding of the use of HRISs within these organisations. The data were analysed using a thematic method of analysis. The units of analysis were the Human Resources and the Information Technology departments of both companies. The units of observation were (21) purposively selected employees in the two mentioned departments of both retail organisations.

Main findings: This research shows an under-utilisation of the HRIS in both companies as a result of poor data quality, lack of adequate training and the high cost of implementing and maintaining the system. There is a gap in terms of data analytics and report generation. This gap leads to the under-utilisation of the HRISs preventing the retailers to optimise the benefits of the HRIS.

Practical and managerial implications: For organisations to reap benefits from HRISs, a change management strategy and a rigorous training programme are needed that will focus on the implemented maintenance and improved usage of these systems.

Contribution: The contribution of the study includes proposed guidelines for the effective and efficient use of HRISs. The study further contributes to the body of knowledge in shedding light on the implementation, maintenance and use of HRISs in the retail industry in the Western Cape, South Africa.

Introduction

Retail is an important sector that contributes to the growth of the economy in many ways, such as the reduction in unemployment and an increase in the gross domestic product (GDP) (Nalla & Varalaxmi, 2014). As the retail sector is a major contributor to the creation of employment in the economy, the management of human resources becomes an important aspect in organisations (Powell & Dent-Micallef, 1997). Quality systems dedicated to human resource management are required to manage this complex environment. Human resource information systems (HRISs) are introduced to strengthen the strategic objectives of organisations by providing accurate information relating to human resources at the lowest time and cost (Das & Ara, 2015). For organisations to achieve this, they need to ensure that strategies such as recruitment, training, development and reward are aligned and well established (Chitere & Gachunga, 2013). An HRIS is defined by Kavanagh, Gueutal and Tannenbaum (1990, p. 13) as 'a system that is used to acquire, store, manipulate, analyse, retrieve and distribute information resources'. The Human Resources (HR) and Information Technology (IT) departments are responsible for the extraction, transformation and loading of company employee information in a system (Mahmoud, 2014).

The purpose of the study

The purpose of the study is to explore the challenges retailers are facing when implementing, maintaining and using an HRIS in order to gain benefits from the system. The research questions are based on how organisations implement, maintain and use HRISs and if there are differences between organisations in how they use the system.

Literature review

For organisations to achieve success in the effective use of an HRIS, there is a need to fully utilise the HRIS as many organisations only use some system functionalities (Mohite, 2012). Some reasons for the ineffective use of the HRIS are the lack of management support, not able to upgrade the system, shortage of funds and poor training. In this complex environment, HRISs are difficult to implement and maintain and as a result, organisations cannot effectively utilise the system to their benefit. The aim of the study is to explore what factors affect the effective use of the system in the organisations and how HRISs are utilised by organisations to gain benefits from the system.

Arora (2013) mentions that the effective use of HRISs is difficult to measure, especially in terms of benefits for organisations. Most organisations that implemented HRISs indicate the system to be complex (Bhargava, 2014). The complexity of an HRIS is posed as a negative influence for the adoption of the system (Alalwan, 2014). Complexity affects innovation when using the system because employees find the system difficult to understand (Ahmer, 2013). Marufu (2014) mentions that under-utilisation of the system is a critical problem caused by the users who lack the understanding of how the system works. Furthermore, the implementation, use and level of maintenance of the system is determined by the size of the organisation (Slavić & Berber, 2013).

The size of an organisation also contributes to the effective use of the system (Ball, 2001) and could be part of the reasons why organisations are not maximising the use of the system, which is a great concern. Sarker (2014) states that there should be a relationship between the size of an organisation and HR practice in the use of the HRIS, so that the growth of the organisation is assisted by the system to select the right skills needed to optimise organisational performance. Many organisations with HRISs neglect positioning the required resources to manage it, depriving the users and the organisations of achieving the benefits it offers (Arora, 2013).

Training is a compulsory requirement that most organisations set as a criterion before employees can access the system (Naris, 2009). In the retail banking sector, training of employees on how to use the system is identified as a critical success factor (Chitere & Gachunga, 2013; Hossain, 2014). Chitere and Gachunga (2013) and Kinanaga (2013) state that training and development are important criteria for the adoption of HRISs to improve HR functions. Nalla and

Varalaxmi (2014) identify a significant difference in the use of HRISs with the introduction of training of newly employed HRIS users in the retail sector. Nalla and Varalaxmi (2014) support Sorescu, Frambach, Singh, Rangaswamy and Bridges (2011), stating that retailers create value for their businesses through innovations and training of their employees in order to build a sustainable advantage in the marketplace.

Akpaloo (2010) identifies the lack of management support and inadequate funding as some of the problems affecting the effective use of the system. Ahmer (2013) supports Akpaloo (2010) by stating that a lack of management support impacts negatively on the adoption of the system. Ngai and Wat (2006) mention that many organisations are not realising the benefit of HRIS implementation because of the lack of funds and support from management. Inadequate funding could deprive an organisation from utilising the system effectively. The cost of the implementation and maintenance of the system is a major concern that impacts its effective use (Iwu & Benedict, 2013). Ahmer (2013) argues that an HRIS with less functionalities could be more expensive in terms of the cost of acquisition and maintenance. The maintenance of the system relates to the upgrades, backups and improvements of the software and hardware part of the system (Lippert & Swiercz, 2005).

System application and products (SAP) is one of, and the most famous, HRIS software programmes that was introduced in 1972 by three German programmers to assist companies in their daily business and human resource activities irrespective of the size of the organisation (Khoualdi & Basahel, 2014, p. 29). Most retailers are identified to be making use of the SAP system, which requires the use of functionalities known as modules. Companies can buy the modules they can afford, but this cost saving can have a negative impact on the use of the system (Udekwe, 2016). Thakur (2016, p. 2) indicates that the proper implementation of SAP assists in improving the efficiency of organisations if effectively utilised. Khan, Hasan and Rubel (2015, p. 48) also comment that the high cost of instituting and maintaining the SAP system is the major barrier in HRIS implementation.

According to Chumo (2014), the HR department is under pressure to reduce costs and at the same time improve the services they render to their employees. Improved services benefit the organisation as the needs of employees include being more satisfied, employee information is secure, employees trust the HRIS, and as a result, their efficiency and effectiveness in the organisation improve.

Organisations that have an HRIS and do not consider information security as important are prone to malpractices which could disrupt the information in the system (Mohite, 2012). Information security in HRISs is a critical factor that should be considered when implementing the system in an organisation (Stone & Dulebohn, 2013). The lack of effective information security of an HRIS could have a negative impact on the effective use of the system, including employees being afraid that their information could be accessed by

unauthorised individuals; as a result, employees could be biased in terms of the level of trust they have in the system.

Trustworthiness of the HRIS is one of the management motivators towards the investment of resources in the system (Iwu & Benedict, 2013). Davarpanah and Mohamed (2013) argue that the trust in the system is determined by the number of components used to operate the system for effectiveness. By identifying potential employees, maintaining complete records of employees and developing the talents and skills of employees, trust in the HRIS can be increased (Bal, Bozkurt & Ertemsir, 2012). Trust in the HRIS system also relates to the involvement of both the HR and IT departments in the form of teamwork and coordination on how to work together to achieve success in the usefulness of the HRIS (Lippert & Swiercz, 2005). The lack of proper teamwork and staff coordination among the users do have a negative impact on the benefits expected to be derived from the use of the HRIS (Mahmoud, 2014). Without proper coordination between the two departments, most organisations would find it difficult to build trust in their HRIS. Bal et al. (2012) mention that effective teamwork will assist in the performance of the system and will go a long way in having an effective work environment.

The performance of organisations in terms of HRIS usage is also based on the level of data quality (Tetteh, 2014). Poor data quality has a negative effect on the organisation's productivity. Incorrect data captured into the system, for example, could have a negative impact on the employees' salaries and other benefits paid to them. The volume of data and the data capturers not understanding the HRIS system could lead to poor data quality in the system (Chen, 2014). According to Bhargava (2014), user requirements are also misunderstood and as a result, the quality of the data decreases. Marufu (2014) identifies poor data quality as part of the challenges that organisations are facing. It negatively affects the level of confidence in the system and that leads to a low level of usage of the system. Furthermore, HRISs are regarded as a strategic tool, especially when the data capturing is accurate (Slavić & Berber, 2013). It also assists organisations in predicting the perfect time to employ or to down size their employment portfolio. Kumar and Parumasur (2013) regard a competitive advantage as one of the major reasons why organisations should invest in HRISs. Das and Ara (2015) also comment on the effective use of an HRIS by the retail organisations and state that HRISs can create a competitive advantage in terms of recruitment, training and development processes as well as other benefits offered by the system.

HRISs can benefit organisations when used effectively and efficiently. However, many factors need to be considered and managed, as the HRIS is a complex tool to use. The involvement of the management and the training of the users are needed to optimise the application of the HRIS. Without good teamwork and adequate funds, the innovation possibilities and the creation of a competitive advantage for the organisation will remain a dream.

Research design and methodology
Research approach
This research was conducted using a qualitative research method. An interpretive paradigm with an inductive approach was followed (Saunders, Lewis & Thornhill, 2009).

Research strategy
A multiple case study was used as a strategy. Two retailers, an oil company and a supermarket company, were used as case studies (Yin, 2003). Both the retailers are leaders in their respective fields. The one retailer has many convenience retail outlets throughout South Africa and Africa. They have been using different HRIS systems for years, but moved to a SAP platform 8 years ago. The other retailer has many different kinds of retail stores and distribution depots. These stores range from super macro stores to small family franchised stores. In this case, the retailer only implemented an HRIS (SAP) 2 years ago.

Many retailers were afraid to participate in the study; only the two mentioned companies made their organisations available for the research. A case study strategy was used because of the need to understand in depth the challenges faced by the management (HR), IT employees and users, from planning through to implementation and thereafter.

Research design
The interviewees were non-randomly and purposively selected. Twenty-one interviews were conducted across the two companies. This research focused on the IT and HR departments of both companies as the units of analysis. The units of observation were 10 employees in the oil retail company and 11 employees in the supermarket retail company. Data were collected by using an interview guide. The interview guide consisted of 40 semi-structured questions directly related to the research questions. The interviews were transcribed and given back to the interviewees for confirmation of the validity and reliability of the transcriptions. The transcriptions were then coded. From the coding, findings were generated and supported by direct quotes from the interviewees. The findings were categorised and themes developed from the findings (Saunders et al., 2009).

Findings
In both organisations, the implementation of an HRIS (SAP platforms) was met with great expectations. The implementations went more or less as planned. The normal project delays did occur, but at large both organisations are satisfied and are using their HRISs. An aspect that stood out was teamwork. In both organisations, teamwork is mentioned as the outstanding factor contributing to the success of the HRIS implementations. The result of the teamwork is that knowledge transfer took place, as an interviewee said:

> All the HR and IT people participated in the implementation process and became part of the project team, which led to knowledge transfer. (I4)

A second important factor contributing to the success of the implementation was the commitment and involvement of top management. Top management in both organisations took ownership of the implementation and oversaw the projects. Their commitment and enthusiasm for the projects contributed to the successful implementation of the HRIS. Management is in support of new changes, and upgrades had to be made. The involvement of management in the implementation of the HRISs has led to the advantage that management trusts the system.

Both organisations are of the opinion that security is at a high level and that there are processes in place to maintain and improve the security of the system. One interviewee stated that:

> All the users do have a username and password to log into the system, and all the HR and IT personnel do have their personal computer that could be used to trace them. (I1)

Training is an on-going concern in both organisations. Users in both organisations are not allowed to use the system before they have completed the training. Interviewees feel that not enough is done to train employees and to maintain the training as new functionalities are added or changes made to the system. Many interviewees are of the opinion that training needs to be increased. One interviewee in company A said:

> They need to push up the performance of individuals through rigorous training in order for them to feel the benefit of the system.

Data quality remains a challenge. This may be the result of the training gaps. An interviewee said:

> It is not really applicable to all employees, but the SAP users are fully trained and also they sign a competency agreement. Access to the system also depends on the employee role. But the accuracy of data is still an issue. (12)

Too many human errors occur, resulting in poor data quality and leading to employees not trusting the system. This is contrary to the trust that top management has in the system. The perceived lack of data quality also affects the analytics and reports generated from the system. In both companies, reports generated are found to be difficult to extract and are not adequately customised to suit the requirements at that particular time. This indicates a gap in terms of data analytics and report generation to the under-utilisation of the systems and preventing the companies from reaping the benefits offered by the HRIS.

As far as upgrades are concerned, one company has a strategy to upgrade on a regular basis and to keep ahead of the tide. In the case of the second retailer, they choose to upgrade only if the upgrade is of direct benefit to the company. The result is that they do not always reap the full benefit of the system upgrades.

There was no clear answer when the interviewees were asked about customer satisfaction. In the case of the one retailer, customer satisfaction with the HRIS is high. Contrary to this, the other retailer has a low HRIS customer satisfaction report. The dissatisfaction is at different levels. In some cases, it is because not all the system functionalities are used; the under-utilisation and a feeling of waste were specifically mentioned. Other interviewees replied that the system is not user friendly or simply cumbersome to use. An interviewee stated:

> I am satisfied with the system and would not recommend any other system, but I think the system could be made to be more users friendly. (I14)

This is supported by a statement from another interviewee:

> I am not totally satisfied; I think the system is cumbersome and my main concern is that reports cannot be easily prepared and printed. Things have to be done on the system in a complicated way. (I5)

Although there is some dissatisfaction at one retailer, most interviewees are of the opinion that the HRISs do add value to their companies, and they will recommend the systems to other companies.

The retailers are of the opinion that the system adds value to their organisation and that the implementation has been successful. The commitment of management, teamwork and training contributed to successful implementation. Top management has trust in the systems and supports the needed upgrades of the systems. System security in both organisations is rated to be good. The main challenge facing the retailers is to use the HRIS optimally. The lack of continuous training may be a reason for the non-usage of all the required functionalities and poor data quality. Both retailers are experiencing challenges in terms of reporting and analytics. This is important as the real value of the HRIS lies with analytics, reporting and data quality.

There is a difference in the two retail organisations based on the usage of the functionalities of the system (Table 1). The oil company makes use of 90% of the HRIS functionalities compared to the supermarket, which uses only 40% of the functionalities. The recruiting system, which is part of the

TABLE 1: Summary of the functionalities in the human resource information systems of both retailers.

Student number	Functionalities of HRIS system	Oil company	Supermarket
1	Payroll	Yes	Yes
2	Time management	Yes	No
3	Benefit administration	Yes	Yes
4	Recruiting system	No	No
5	Learning systems	Yes	Yes
6	Performance management	Yes	No
7	Employee self-service (ESS)	Yes	No
8	Scheduling	Yes	No
9	Absence management	Yes	No
10	Analytics	Yes	Yes

Source: Udekwe, E. (2016). *The impact of human resources information systems in selected retail outlets in Western Cape.* Cape Town, South Africa: Cape Peninsula University of Technology, p. 88

HRIS, human resource information systems.

HRIS, is the only system that both retailers do not use. This poses a general problem and needs to be researched in future.

Discussion

HR management in retail is important as the sector is one of the largest employers in the economy of the Western Cape Province. The HRIS is an important tool used to assist organisations in managing their complex HR environment. The implementation and maintenance of HRISs are difficult and complex, and as a result, many companies do not reap the benefits and value the system offers. Contrary to the general perception and research reports on the implementation of HRISs, this study shows that under certain conditions, the implementation of HRISs can be done successfully. In both of the cases investigated, the retailers reported successful implementation of the HRIS.

When implementing an HRIS, according to the participants of the study, teamwork is stated as the most critical success factor in both organisations. This is supported by the findings of Shaikh (2012) who states that teamwork is a critical factor that contributes to the effectiveness of an HRIS. Kumar and Parumasur (2013) argue that teamwork creates the environment where knowledge transfer happens and as a result, assists with the implementation of an HRIS.

The involvement and commitment of top management is needed to contribute to the implementation and effective use of an HRIS (Alalwan, 2014). The findings of the study support those of Alalwan (2014). In both cases, the management of the retail organisations took ownership of the project and is committed and involved not only in the implementation phase but also with the maintenance, further development and enhancements to the system.

Security is an important factor that needs special attention when implementing an HRIS as well as during the operating and maintenance life cycle of the system. Irrespective of the organisation size, HRIS implementation needs to have security in place to safeguard the system (Mohite, 2012). Both organisations have security in place to safeguard the system. Usernames and passwords as an access code are created for all the users. A full audit trail is also kept when users are logged into the system.

In many organisations training is prioritised as being important. Training has become important as it contributes towards creating a competitive advantage for the organisation (Das & Ara, 2015; Powell & Dent-Micallef, 1997). The more employees know and understand the organisation, business processes and its systems, the better the organisation will benefit from the system, and values will be added to the bottom line. In both retail organisations, training is seen as an on-going concern and a prerequisite for the use of the HRIS. Ji, Guthrie and Messersmith (2014) identify rigorous training of employees as an influence to employment stability and job satisfaction. From the interviews conducted in this research, it has been found that there is a lack of rigorous training to

equip the users, especially as far as new upgrades are concerned. This is a challenge for the organisations as the lack of skills and knowledge of the upgrades will affect the utilisation of the HRIS.

The upgrades of the HRIS are an important strategic decision. Upgrades are important as it keeps the organisation in touch with the latest technological advances. These technological advances can improve and safeguard the systems of the organisation, leading to a competitive advantage. It also ensures the organisation that the system is fully utilised. Mohite (2012) proposes that other required missing applications should be added to the HRIS system for full utilisation of the system. Laumer, Maier and Eckhardt (2014) agree with Mohite (2012) that procedures need to be put in place in the use of HRIS to support business strategic goals and objectives. There are various procedures to follow as far as upgrades are concerned. Organisations can follow best practices for upgrades as they are made available by the manufacturers but will be determined by the availability of funds and the required timing by the organisations. In this study, one of the retailers does regular upgrades but lacks in effective training support to the users. The other retailer only conducts upgrades based on cost and business requirements. This particular retailer also lacks an effective training programme on the use of the system, which is a concern.

Data quality is an important characteristic of HRISs. Effective data quality is regarded as a strategic tool used by organisations to make strategic decisions (Slavić & Berber, 2013). Inaccurate data or poor data integrity of an HRIS leads to mistrust and inadequate usage of the system (Ukandu, Iwu & Allen-Ile, 2014). Human error is one of the main factors affecting the quality of data. Therefore, training and employee understanding of the importance of quality data when using the system is of fundamental importance to the organisation. Poor quality of data leads to poor data analytics and reporting, which result in low trust in the system. In both organisations, data quality and analytics are challenged by poor usage of the system, which leads to poor system satisfaction within the organisations. Marufu (2014) argues that poor data quality and low user satisfaction do have a negative impact on the success of the system. There is a need for improvement in the quality of data in order to utilise the system effectively and efficiently. These findings support the findings of Akpaloo (2010) and Ukandu et al. (2014). Ukandu et al. (2014) argue that by enhancing data quality, the organisation could gain a competitive advantage using an HRIS. At the same time, trust and satisfaction levels of employees in and with the use of the HRIS will increase.

Confidence and trust in the HRIS is an important factor when utilising the system. The lower the trust in the system, the less effective is the use of the system. According to Iwu and Benedict (2013), trust and confidence in the use of HRISs by management is important because the higher the trust, the higher will the investments be that is made by management to support the system. As far as the two retailers are concerned, management and employees have a high level of

confidence and trust in the system. Unfortunately, there are some smaller issues within the system threatening the trust relationship between management, employees and the utilisation of the system. When evaluating these issues, it all goes back to data quality and training.

The HRIS usage is characterised by the resources and efficiency of the administrators (Mohite, 2012). The two retail organisations have identified that the system is not fully utilised because not all of the required functionalities are utilised, which negatively affects the effectiveness of the system. Although the two organisations are not operating within the same sector of the retail industry, the lack of optimal use of the system is a common threat to both retailers. This is caused by the lack of skilled employees to operate the system and human errors that create poor data quality in the system. The under-utilisation of the systems by both organisations is rather interesting as most of the findings are very positive. Many of the critical areas are adhered to, but when asked about the usage of the system, both companies responded negatively. The two main reasons for this phenomenon seem to be the poor data quality and lack of effective training. Both these issues are not system problems but rather human problems.

Based on the difference in the utilisation of the HRIS, it could be seen in Table 1 that one of the retailers is making use of 9 out of 10 HRIS functionalities as compared to the other retailer which makes use of only 4 out of the 10 functionalities. According to Iwu and Benedict (2013) as well as Mukherjee, Bhattacharyya and Bera (2014), the use of the required HRIS functionalities assists in having an accurate HRIS recruiting system. Further research needs to be conducted on the impact of the utilisation of the HRIS in the two organisations.

Despite the under-utilisation of the system, the employees and other stakeholders seem to be satisfied with the HRIS. They all recognise that the system adds value to the employees, management and organisation at large. Nawaz and Gomes (2014) as well as Vărzaru and Albu (2014) indicate that satisfaction of the system is an important indicator of the effectiveness of the system. Although the effectiveness level of the systems is rated as good by both organisations, some challenges were raised by employees. The complexity of the system, the lack of customisation and poor functionalities are causing frustration and some discomfort at certain levels within the organisations. The reasons for these challenges need further research in the sector.

It is proposed that for successful implementation of HRISs and gaining optimal benefits from the system, retail organisations could follow the proposed guidelines:

- create a steering committee to guide the implementation process
- determine the goals and objectives of the HRIS
- get management involved and committed to the implementation and maintenance of the HRIS
- prioritise the implementation of the HRIS to create its importance in the mind of the employees (change management)

- make use of all the required functionalities for benefit creation
- customise some of its functionalities to eliminate difficulties in operation
- conduct a rigorous training programme to equip the users of the system to fully use the system.

Conclusion

The HRIS is an important strategic tool for organisations' growth and productivity. The two retailers that formed the basis of the study emphasise the advantage of using an HRIS. Although many factors such as management commitment and support, good teamwork and security contributed to the successful implementation of the system, there are also some concerns, especially as far as system usage is concerned. The lack of continuous training, lack of regular upgrades, not making use of all the required system functionalities and poor data quality are creating challenges to the retail organisations. These challenges could result in low employee and management satisfaction, preventing the organisation from reaping the benefits and value offered by the system to the retail organisations.

It is recommended that a training strategy supporting the changes, as well as maintenance of the system, be put in place. Furthermore, the training should develop a good user understanding of the system as a whole, including processes, data quality and the role that users play when operating the system. It is further recommended that organisations simplify and modify some of the HRIS applications in order to eliminate complexity and complications when using the system. Added to the training, procedures of regular upgrades need to be created. With the pace of changes in the retail industry, no organisation can afford to fall behind with the latest technology. This will result in the organisation losing its competitive advantage and market place.

Acknowledgements

Competing interests

Authors' contributions

A.C.d.l.H. is the supervisor for E.U.'s Master's thesis. E.U. is a Master's student and successfully completed his Master's degree.

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Transformational leadership as a mediator in the relationship between satisfaction with remuneration and the retention of artisans in the military

Authors:
Zamokuhle W. Shabane[1]
Cecile M. Schultz[2] 🄳
Catharina E. van Hoek[2]

Affiliations:
[1]Department of Defence, Pretoria, South Africa

[2]Department of People Management and Development, Tshwane University of Technology, South Africa

Corresponding author:
Zamokuhle Shabane,
shabanezw@yahoo.com

Orientation: The field of leadership has been extensively researched over the last couple of decades, with a particular emphasis on the different types of leadership styles. The most valuable resource that any manager works with is human resources. Studies have indicated that the way in which people are managed is influenced by the leadership styles of managers. This, in turn, influences employee behavioural intention, including intention to quit. Retention is, in turn, influenced by a number of factors, including remuneration. This study considers the relationship between satisfaction with remuneration and retention and the mediating role that a transformational leadership style may play in this regard.

Research purpose: The objectives of this study were twofold. Firstly, to determine whether transformational leadership played a mediating role in the relationship between satisfaction with remuneration and intention to stay amongst artisans employed in the military. Secondly, to determine whether there were demographic differences for these findings.

Motivation for the study: This study was conducted to determine whether a perceived lack or presence of transformational leadership influences the intention to quit amongst employees in relation to their level of satisfaction with their remuneration. In this way, the study may assist in determining strategies to improve artisan retention levels.

Research methodology: The study was quantitative in nature. A survey research design was applied to collect data, using a questionnaire as the survey instrument, from artisans ($N = 108$) employed at a military unit in Pretoria.

Main findings: The results revealed that the participants, regardless of gender or race, were generally unsatisfied with their remuneration. Transformational leadership was found to play a mediating role in the relationship between satisfaction with remuneration and intention to stay.

Practical/managerial implications: Organisations should develop the transformational leadership skills of their managers in order to increase talent retention levels and reduce employees' intentions to quit.

Contribution and value additions: The results of the study could assist military base commanders in improving artisan retention levels through implementing effective transformational leadership development programmes.

Introduction

Talent attraction and retention is a challenge for organisations across the world. The first step in the process of increasing employee retention is often the administration of a satisfaction survey that seeks to measure employee perceptions of retention strategies (Rust & Pielack, 1996). Employee retention is defined as the development and implementation of integrated strategies or systems designed to increase workplace productivity by developing improved processes for attracting, developing, retaining and utilising people with the required skills and aptitude to meet current and future business needs. This can result in employees liking and identifying with their employer, and displaying commitment, trust and readiness to recommend them to other potential employees and clients (Sinha & Sinha, 2012).

Transformational and charismatic leadership are highly associated with individual and organisational performance. The effectiveness of leaders is measured by their ability to provoke or lead followers towards a common or shared goal (Ahmad, Abbas, Latif & Rasheed, 2014). Transformational leadership has the effect of 'transforming' followers' attitudes, beliefs and behaviours (Ehrich & Ehrich, 2012).

The focus of this study is to understand whether the absence or presence of transformational leadership has a mediating effect on artisans' level of satisfaction with remuneration and their intention to stay with or quit their employer.

Purpose

The objectives of this study are:

- to determine whether there are significant relationships between transformational leadership, retention and satisfaction with remuneration
- to determine whether transformational leadership is a mediator in the relationship between satisfaction with remuneration and retention
- to determine whether categories of artisan groups perceive transformational leadership, retention and satisfaction with remuneration differently.

Literature review

Employee retention

Employers seek to attract and retain talented employees. Before any employee may be acquired and retained by any organisation, he or she must possess the set of skills that no other person possesses or where it is difficult to recruit such a scarce-skilled employee. This is referred to as talent. Talent is defined as an individual's differentiated potential or ability to execute his or her functions and duties against the organisation's growth strategy (Botha, Bussin & De Swardt, 2011).

Employee retention is defined as a process that ensures that the organisation at all times has access to human capital capacity (competence, capability), including leadership, to execute its business strategy and operations effectively and efficiently, both now and in the future (Bussin, 2014). The author emphasises the importance of talent management as a retention strategy to ensure the continuous supply of the necessary workplace skills in a rapidly changing work environment.

Talent and talent management are directly linked to the ability of an organisation to attract, acquire, manage and retain personnel for longer, thus maximising profit and achieving the organisational vision (Bussin, 2014). Employee retention refers to the efforts by an organisation to keep in employment those employees of whom the organisation has a positive evaluation and who would normally only leave the organisation through voluntary resignation (Van Rooyen, Du Toit, Botha & Rothmann, 2010).

Despite South Africa's potential to compete globally, numerous challenges remain. Skills shortages have a negative effect on the availability of competent people in the country (Van Schalkwyk, Du Toit, Bothma & Rothmann, 2010). In particular, there is a critical shortage of artisans in South Africa (Van Rooyen et al., 2010) and artisan retention is thus a particular challenge. The artisan is described as a highly skilled person working with hands, with emphasis on practical skills in a technical field that are manual in nature. They include trades such as millwright, electrician, plumber, boilermaker, mechanic, patternmaker and injection moulder, welder, fitter, turner, sheet metal worker, mechatronics, toolmaker, patternmaker, bricklayer, carpenter, joiner, shutter hand, steel fixers, glaziers, plasterer, tillers, sound technician and instrumentation and electronics technician (Jordaan & Barry, 2009; The Skills Portal, 2017a).

Artisan retention is of key importance not only because the country is facing a critical shortage of artisans, but also because the average age of an artisan is of concern. In a study conducted by Jordaan and Barry in 2009, this age was 54 years (Jordaan & Barry, 2009). Therefore, 70% of the artisans who were employed at the time of Jordaan and Barry's research would have exited the labour force within 5–6 years after their research, which would only have aggravated the shortage of artisans and intensified the competition for talent. Organisations will have to implement strategies to keep artisans in their service. Van Rooyen et al. (2010) report that many artisans are being recruited intensively by Canada and Australia, which has led to local organisations trying to counter this by offering more competitive salaries and retention bonuses.

Factors contributing to employee retention

In their study, 'Employee satisfaction, entrepreneurship and firm growth: A model', Antoncic and Antoncic (2011) identified the factors listed below as having a crucial role in increasing employee satisfaction and ensuring high employee retention.

General satisfaction

According to Antoncic and Antoncic (2011), general satisfaction pertains to employees who are relatively well rewarded financially for their work, and find their work challenging, exciting and providing them with a sense of accomplishment. These employees are committed to the organisation, feel a great sense of personal satisfaction and are proud to tell others that they are part of their organisation. General satisfaction is further characterised by an organisation in which most employees are very satisfied with their job, feel that they have the opportunity to be independent through their actions in their positions and feel the prestige of their position inside the company.

Employee relationships

Antoncic and Antoncic (2011) further outline that the employee relationships, which occur when employees feel that their colleagues are kind to them, get along with them and stimulate them, have an influence on job satisfaction and retention. This can be enhanced by the company's efforts to manage the relationship between themselves and employees, and by providing fair and consistent treatment to all employees (Study.com, 2017).

Employee loyalty

Employee loyalty occurs when employees are not actively searching for alternative employment and are not responsive

to offers (K@W, 2012). Employee loyalty is found when employees are able to talk about their organisation to their friends, and portray it as a great organisation to work for (Antoncic and Antoncic, 2011)

Remuneration

Schlechter, Hung and Bussin (2014) stress the point that the money consists of three components, namely affective, symbolic and behavioural components.

The affective component suggests that on one end of a continuum, there are some people who view money as important and valuable, whilst on the other end, some people perceive the value of money as bad and evil. Symbolically, money is associated with attributes that most people strive for. These include achievement and recognition, status and respect, freedom and control and power. Money is often used to recognise accomplishments; it can provide the luxury of time and autonomy as well as power and access to resources. The behavioural component focuses on people's actions such as investing money, concludes Schlechter et al. (2014):

> From the employer's point of view, pay is a powerful tool for furthering the organisation's strategic goals. Firstly, pay has a large impact on employee attitude and behaviour. It influences what kind of employees are attracted to the organisation and remain and it helps in aligning their interests with those of the company. (Noe et al., 2015, p. 25)

Table 1 illustrates the phases of rewards.

Factors mediating the role between retention and satisfaction with remuneration

There are many factors that could play a mediating role in the relationship between retention and satisfaction with remuneration. Coomber and Barriball (2006) outline a few factors below:

- *Economic factors*: They include sub-factors such as pay or remuneration, job market and training provided by the employer.

TABLE 1: Phases of rewards.

The modalities of reward	Specific descriptions
Wage	A wage is usually a financial compensation, received by employees in exchange for their labour.
Salary	A salary is a form of periodic payment from an employer to an employee, which may be specified in an employment contract. It is contrasted with piece wages, where each job, hour or other unit is paid separately, rather than on a periodic basis.
Compensation	Compensation is something similar with pay or salary, typically a monetary payment for services rendered, as in an employment. Some benefits may be concluded.
Total compensation	Total compensation includes pay, benefits, flexible schedules, education assistance, training courses and workplace opportunities to help you get the most out of your career and personal life.
Total reward	Total reward covers all the elements that employees value in working for their employer. It emphasises the integrity of remuneration and is put forward in contrast to total compensation. Although at most times, it is thought as the same as total compensation, total reward remains the most new word in the category of remuneration or reward.

Source: Jiang, Z., Xiao, Q., Qi, H., & Xiao, L. (2009). Total reward strategy: A human resources management strategy going with the trend of the times. *International Journal of Business and Management, 4*(11), 177–183. https://doi.org/10.5539/ijbm.v4n11p177

- *Structural factors*: Work environment and work context.
- *Psychological factors*: Individual characteristics and employee demographic and leadership.

Based on the above discussion, one of the most critical factors is psychological factor and it encompasses leadership, more specifically transformational leadership. This form of leadership is discussed next.

Transformational leadership

Transformational leadership is described as an ability to network and remain functionally separate from execution-focused elements of the organisation, for example, business units, divisions and departments (Deiser, 2012). Transformational leaders take personal and collective ownership for visioning the future state of the organisation and championing transformational change throughout the organisation (Deiser, 2012).

Deiser (2012) elaborates that transformational leaders demand much from their employers, such as freedom to create, make mistakes, learn, an unambiguous remit to drive transformation, a collaborative leadership ethos and access to diverse talent. They further expect clarity about the opportunity and potential for their contribution within the organisation, the opportunity to leave a positive and sustainable footprint, significant learning and development opportunities, as well as stimulation and challenge (intellectually and emotionally).

Transformational leadership is further defined by Van Zyl et al. (2013) as the ability of an individual to focus on transforming the organisation. These authors' focus is on the leader's accomplishments, and not on his or her personal characteristics or relationships with his or her followers. Northouse (2013) agrees with the argument by Van Zyl et al. (2013) but adds that transformational leadership is the process that transforms and changes people. Northouse (2013) says transformational leadership is concerned with emotion, values, ethics, standards and long-term goals. Transformational leadership also includes assessing followers' motives and intentions, satisfying their needs and treating them as full human beings.

Jeanine (2009) argues that transformational leaders strive to align their own interests and those of others with the interests of the group, organisation and society. Bass and Avolio (2004) add that transformational leaders are high on morals through their use of altruistic empowering strategies as a means of transforming followers' self-interest into collective values and interdependent goals that support organisational interests. Transformational leaders have been described as those who alter or manipulate the way their followers think about themselves such that feelings of commitment and involvement are enhanced (Brian, Gregory, Nathan & Sean, 2011).

Transformational leadership may be perceived when a leader and a follower enable each other to advance to a

higher level of morale and motivation (Nemanich & Keller, 2007). Through the strength of their vision and personality, transformational leaders are able to inspire followers to change their expectations, perceptions and motivations and to work towards common goals. The evidence suggests that transformational leadership is linked to the outcomes that most organisations, individuals and leaders would value. Mokgolo, Mokgolo and Modiba (2012) found that engaging in transformational leadership behaviour is an effective strategy to empower line managers to meet the challenges they face.

Mokgolo et al. (2012) suggest that leaders must develop a vision that stakeholders share and to which they aspire, and that leaders should be able to use inspirational language in doing so. Leaders must engage in acts that involve personal risk and sacrifice. Furthermore, leaders must strive to gain the trust of subordinates and they must be role models and show total commitment to achieving the objectives of their organisation. The attributes of a transformational leader are depicted in Box 1.

It is clear, after considering all that is mentioned above, that transformational leadership is a non-self-serving action. It focuses on followers as the basic ingredients to achieve great success, and the well-being of followers is a priority for transformational leaders. Followers must do what they do voluntarily and willingly, regardless of the presence or absence of rewards and punishment.

Research methodology
Research design and approach

The study was quantitative in nature and a questionnaire was used as the data collection instrument. Bless, Higson-Smith and Sithole (2014) state that a quantitative research design provides a detailed outline for the testing of the hypothesis, spelled out in clear and definite terms. Quantitative research is focused predominantly on collecting numerical data, and quite often relies on deductive reasoning, to form a view about the likelihood of an event occurring and its nature, and then tests whether the view is correct, partially correct or incorrect (Mncwabe, 2013). Therefore, a quantitative research approach was chosen as the most appropriate technique for this study.

This project could also be typified as a correlational study. Bless et al. (2014) believe that correlational research is used when a researcher can make a statement or hypothesis predicting the relationship between two or more variables.

BOX 1: Transformational leadership attributes.

Functional attributes
Idealised influence or charisma
Inspirational motivation
Intellectual stimulation
Individualised consideration

Source: Gregory, A., Stone, R.F., & Patterson, R.K. (2004). Transformational versus servant leadership: A difference in leader focus. *Leadership & Organization Development Journal, 25*(4), 349–361. https://doi.org/10.1108/01437730410538671

The results obtained will be able to provide a precise description of reality. Therefore, the survey design was correlational as it sought to measure the relationships between three variables (namely transformational leadership, employee retention and satisfaction with remuneration). A cross-sectional design was used to gather the data in order to achieve the specific aims of this study.

Measuring instruments

The measuring scales used in the questionnaire were developed by combining questions from three existing questionnaires. The adapted questionnaire was divided into four sections, namely demographic information, satisfaction with pay, transformational leadership and employee retention.

The first questionnaire used to source questions was the Minnesota Satisfaction Questionnaire, which was developed in 1967 by the Department of Vocational Psychology Research at the University of Minnesota (see Martins & Proença, 2012). The questionnaire measures the level of all aspects of satisfaction in the workplace (Martins & Proença, 2012). Of 100 questions measuring employees' satisfaction with their supervisors' leadership styles, working conditions, remuneration, development, employee relations and more, seven questions related to remuneration were extracted and derived from the themes identified in the literature review. The scale was developed as a unidimensional measure of the respondents' satisfaction with remuneration. In order to investigate the unidimensionality of the adapted scale, a factor analysis was performed. Kaizer–Meyer–Olkin (KMO) and Bartlett's test were used and a result of 0.753 was achieved, which is acceptable for sampling adequacy, as concluded by Kaiser (1970). Bartlett's test of sphericity (Kaiser, 1970) was significant at $p = 0.000$.

The Transformational Leadership Questionnaire (Bass & Avolio, 2004; Lievens, Van Geit & Coetsier, 1997) was the second questionnaire with 22 questions related to transformational leadership, and factor analysis was conducted to ensure its validity. The questionnaire was a combination of information from Bass and Avolio (2004) and Lievens et al. (1997), where transformational leadership was measured based on how leaders think, treat followers, advance the careers of subordinates, develop followers and manage performance of followers and so on. Four sub-factors (Bass & Avolio, 2004; Lievens et al., 1997) were extracted:

- Sub-factor 1: Idealised influence or charisma.
- Sub-factor 2: Intellectual stimulation.
- Sub-factor 3: Individualised consideration.
- Sub-factor 4: Inspirational leadership.

The third scale was developed with questions sourced from Sinha and Sinha (2012, pp.153–154) and consisted of 10 questions designed to measure the retention intentions of employees through identifying critical aspects of organisational actions that employees deem necessary for them to remain in the employ of the organisation. The scale measures aspects such as the employer's flexibility, working

times, fringe benefits as well as compensation in general. All 10 questions focus on the reasons why employees are prepared to leave or stay in the organisation based on the presence or absence of transformational leadership.

Upon conducting factor analysis, two sub-factors emerged from the 10 questions, namely motivation and supervisor relationship as well as compensation and benefits. The initial principle components analysis showed that two factors reached an eigenvalue of more than 1. A total of 59.08% of variance was explained by these two factors.

The reliability of these factors was investigated by means of Cronbach's alpha. The value was 0.762, which was acceptable. According to Bryman and Bell (2007), Cronbach's alpha values of 0.70 and above are typically employed as a rule of thumb to denote a good level of internal reliability. Clark and Watson (1995) suggest that the average inter-item correlation of items should be between 0.1 and 0.5. In this case, the value was 0.306. The employee retention scale may thus be regarded as valid and reliable, although it did not follow the original scale structure. The reliability of the two factors was also determined. Reliability was guaranteed by determining the Cronbach's alpha for sub-factor 1, which was 0.869 and the average inter-item correlation was 0.475, whilst for sub-factor 2 and sub-factor 3, it was 0.804 and for sub-factor 4 it was 0.578.

Participants

The population comprised 275 artisans in the military unit. A purposive sampling method was used. A total of 108 questionnaires were completed and returned, representing a 56.8% response rate, which was found to be acceptable (Bless et al., 2014). A representative sample could also be confirmed on account of the diverse nature of the respondents in terms of age, trade, employment length, service period, academic qualifications as well as ranks.

Of the 105 respondents who indicated their gender, 73 (69.5%) were male respondents and 32 (30.5%) female respondents. The youngest respondent was 20 years old and the oldest was 57 years old. The average age of the sample was 37.1 years. This indicates a largely male and relatively young group of respondents.

Analysis

A correlation analysis using Spearman's rho correlation (Bless et al., 2014) was conducted to determine the relationship between transformational leadership, satisfaction with remuneration and retention. Regression analysis was used to determine whether leadership is a mediator between employee's retention and satisfaction with remuneration.

Results and discussion

The study was directed at qualified artisans and apprentices (student artisans). The study also focused on different trades

within the technical mustering. The average response per sub-factor from all respondents was 3, which is moderate, as shown in Figure 1.

Categories of trade in the sample

Diesel mechanics dominated the artisans' trade at 51 (47.2%), followed by other trades at 22 (20.4%). The minority comprised refrigerator mechanics with 2 (1.9%). The occupational classes consisted of 79 (73.1%) artisans and 28 (25.9%) apprentices. The service length was evenly distributed from 1 to 35 years. Most respondents had at least 4 and 5 years' service, with the average years of service being 13.7 years. This may be indicative of a high labour turnover.

Significant differences (trade)

Analysis of variance was used to determine whether differences existed amongst different trade groupings of the population on their mean scores for each of the sub-factors identified above (Bless et al., 2014). The results of this analysis are presented in Table 2.

Analysis of variance

This analysis revealed a significant difference in the population means of motor (diesel) mechanics, auto electricians, welders, refrigerator mechanics or carpenters as well as other trades as the probability value of $p = 0.001$, which was less than 0.05 when it comes to satisfaction with remuneration.

On the basis of this finding, further statistical analysis, in the form of multiple correlations, was conducted to determine whether significant differences existed between the trade musterings for the sub-factor 'satisfaction with remuneration'. These results are presented in Table 3.
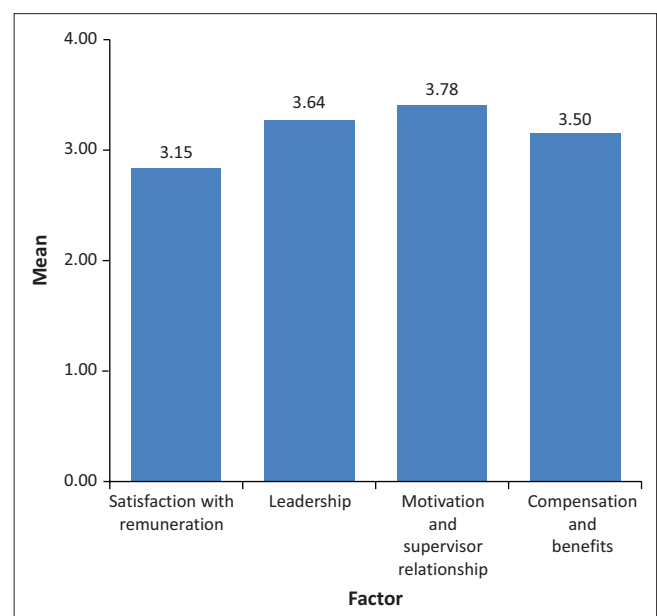
FIGURE 1: Descriptive statistics per factor.

The results of this analysis revealed that the satisfaction with remuneration of diesel mechanics differed to that of welders, refrigerator mechanics, carpenters and other trades. In addition, this difference was also found to exist when comparing the latter group to diesel mechanics and auto electricians. These differences were found to be significant ($p = 0.002$). This seems to suggest that there are other factors influencing satisfaction with remuneration of diesel mechanics when compared to other trades.

TABLE 2: Analysis of variance comparison – between and within groups of motor (diesel) mechanics, auto electricians, welders or refrigerator mechanics or carpenters as well as other trades.

ANOVA	Sum of squares	df	Mean square	F	Sig.
Satisfaction with remuneration					
Between groups	7.48	2	3.740	7.026	0.00
Within groups	55.89	105	0.530	-	-
Total	**63.37**	**107**	**-**	**-**	**-**
Transformational leadership					
Between groups	2.28	2	1.140	2.480	0.08
Within groups	48.28	105	0.460	-	-
Total	**50.57**	**107**	**-**	**-**	**-**
Motivation and supervisor relationship					
Between groups	0.84	2	0.420	0.880	0.41
Within groups	50.03	105	0.477	-	-
Total	**50.87**	**107**	**-**	**-**	**-**
Compensation and benefits					
Between groups	3.75	2	1.879	2.570	0.08
Within groups	76.57	105	0.729	-	-
Total	**80.33**	**107**	**-**	**-**	**-**

ANOVA, analysis of variance.

TABLE 3: Multiple comparison tests between the mustering codes groups (post hoc).

Satisfaction with remuneration	Mean difference (I–J)	Std. error	Sig.	95% confidence interval	
				Lower bound	Upper bound
Motor (diesel mechanic)					
Auto electrician	-0.12	0.19	0.82	-0.61	0.36
Welder, refrigerator mechanic, carpenter or other	-0.57	0.15	**0.00**	-0.96	0.18
Auto electrician					
Motor (diesel mechanic)	0.12	0.19	0.821	-0.36	0.61
Welder, refrigerator mechanic, carpenter or other	-0.45	0.20	0.09	-0.96	0.05
Welder, refrigerator mechanic, carpenter or other					
Motor (diesel mechanic)	0.57	0.15	**0.00**	0.18	0.96
Auto electrician	0.45	0.20	0.09	-0.05	0.96

Note: The bold values depict where significant differences were detected between population means.

TABLE 4: Correlations between all four sub-factors.

Spearman's rho	Correlation	Satisfaction with remuneration	Transformational leadership	Motivation and supervisor relationship	Compensation and benefits
Satisfaction with remuneration	R**	**1.00**	0.38**	0.38**	0.50**
	p	-	0.00	0.00	0.00
Leadership	r	0.38**	**1.00**	0.52**	0.45**
	p	0.00	-	0.00	0.00
Motivation and supervisor relationship	r	0.38**	0.52**	**1.00**	0.62**
	p	0.00	0.00	-	0.00
Compensation and benefits	r	0.50**	0.45**	0.62**	**1.00**
	p	0.00	0.00	0.00	-

Note: The bold values (1.00) depict a strong linear relationship between sub-factors.
, Correlation is significant at the 0.01 level (2-tailed); *, R represents a correlation efficient measuring the linear relationship.

Correlations

Cohen (1988) argues that correlations can vary in magnitude from -1 to 1, with -1 indicating a perfect negative linear relationship (as one variable increases, the other decreases), 1 indicating a perfect positive linear relationship (as one variable increases, the other decreases and the inverse) and 0 indicating no linear relation between two variables. As statistical significance of this value is largely influenced by sample size, Cohen (1988) suggests that a correlation of 0.5 is large, 0.3 is moderate and 0.1 is small. Table 4 indicates the results obtained in performing correlations between the four sub-factors.

The correlation between transformational leadership and satisfaction with remuneration was found to be at 0.380 with a significance level of 0.01.

The correlation between motivation and supervisor relationship and satisfaction with remuneration was found to be at 0.389 with the significance level set at 0.01. These correlations translate to moderate correlations based on Cohen's (1988) guidelines.

The correlation between motivation and supervisor relationship and transformational leadership was found to be at 0.528 and the correlation between compensation and benefits and satisfaction with remuneration was found to be at 0.508. Because any correlation that is greater than 0.5 is considered large, according to Cohen (1988), this correlation was classified as large correlation.

Lastly, the correlation between compensation and benefits and transformational leadership was found to be at 0.458. This correlation was moderate. This means that when supervisors display a transformational leadership style, satisfaction with remuneration is likely to increase significantly and the motivation–supervisor relationship improves.

Regression

Regression is a technique use to predict the value of a dependent variable using one or more independent variables. There are two types of regression analysis, namely simple and multiple regressions. Simple regression involves two variables: dependent variable and independent variable.

Multiple regressions involve many variables, one dependent variable and many independent variables (Tyrrel, 2009). In this study, simple regression between retention and leadership was used.

Hayes (2009) defines mediation as a sequence of causal relations by which X exerts its effect on Y by influencing intervening variables.

A regression analysis was conducted to determine the mediating influence of leadership between satisfaction with remuneration and retention. There are four steps in measuring the mediation by leadership between satisfaction with remuneration and retention. The variables that were measured are depicted below where X = Satisfaction with remuneration, Y = Retention and M = Leadership.

Figure 2 depicts the effect transformational leadership (c′) has on the relationship between satisfaction with remuneration (x) and employee retention (y). The effects are discussed in Figure 3.
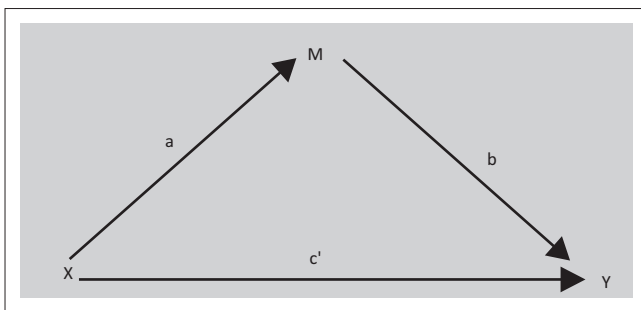
FIGURE 2: A simple mediation model effect.

Number of bootstrap samples for bias corrected bootstrap confidence intervals: 5000 and level of confidence for all confidence intervals in output: 0.95.

Step 1: This step establishes the direct effect of X on Y. In an intervening variable model, variable X is postulated to exert an effect on an outcome variable Y through one or more intervening variables, sometimes called mediators. This represents path c in the model in Figure 2. In step 1 of the mediation model, the regression of satisfaction with remuneration on retention, ignoring the mediator, was significant ($b = 0.4151$, $p = 0.000$).

Step 2: Next, it needs to be shown that the independent variable is correlated with the mediator. This step essentially involves treating the mediator as if it were an outcome variable and represents path a above. Step 2 showed that the regression of the satisfaction on the mediator, leadership, was also significant ($b = 0.370$, $p = 0.000$).

Step 3: Now it must be demonstrated that the mediator affects the outcome variable (estimate and test path b). However, it needs to be controlled for the independent variable. In this case, the relationship between leadership and retention is significant ($b = 0.463$, $p = 0.000$), controlling for satisfaction.

Step 4: To establish path c′, namely that M mediates the X–Y relationship, the effect of X on Y controlling for M should be zero. This would mean that there is *complete* mediation. This analysis revealed that, controlling for the mediator (leadership), satisfaction with remuneration was still a significant predictor of retention ($b = 0.244$, $p = 0.000$), which

R	R-sq	MSE	F	df1	df2	p
0 . 4149	0 . 17	0 . 39	220374	10000	1060000	0 . 00
Model						
	coeff	**SE**	**t**	**p**	**LLCI**	**ULCI**
Constant	2 . 4682	0 . 25	96435	0 . 00	1 . 96	2 . 97
Satisfaction with remuneration	0 . 37	0 . 07	46944	0 . 00	0 . 21	0 . 52
Retention model summary 1						
R	**R-sq**	**MSE**	**F**	**df1**	**df2**	**p**
0.6440	0.41	0.26	37.19	2.00	105.00	0.00
Model						
	coeff	**SE**	**t**	**p**	**LLCI**	**ULCI**
Constant	1.24	0.28	4.32	0.00	0.67	1.81
Leadership	0.46	0.07	5.78	0.00	0.30	0.62
Satisfaction with remuneration	0.24	0.07	3.41	0.00	0.10	0.38
Normal theory tests for indirect effect						
Effect		**SE**	**Z**		**p**	
0.1714		0.04	3.61		0.00	Sobel

Note: The bold values depict a strong effect of *x* on *y* between sub-factors.

FIGURE 3: Leadership mediation model.

suggests *partial* mediation. Satisfying all four conditions provides evidence for complete mediation, whereas satisfying the first three conditions indicates partial mediation.

Put in another way, if the effect of X on Y is reduced when the mediator is included ($c' < c$), then the direct effect is said to be *partially* mediated. The B coefficient for c is 0.415 and for path c′, it is 0.244. The effect is thus reduced. This is confirmed by the indirect effect in the output. Zero does not fall within the confidence intervals of the Beta coefficient BCi= 0738; 0.299; therefore, mediation can be assumed.

A Sobel test was conducted and found significant with mediation ($z = 3.614$, $p = 0.0003$). It was found that leadership mediated the relationship satisfaction with remuneration and retention. In essence, this implies that any changes in either improving or deterioration in transformational leadership will increase the level of artisans desire to remain in the organisation or leave, regardless of the improvement in the levels of remuneration.

Limitations

The following limitations were encountered in conducting this study:

- Some respondents who were identified as part of the sample were not available during the data collection phase as they were deployed for a period of 1 year to the Democratic Republic of Congo (DRC); thus, their opinions could not be obtained.
- The number of officers who responded was very small compared to the number of available officers in the unit and their response rate was not representative of their ranks within the unit and the South African (SA) Army as a whole as the proportionality was skewed.
- A number of respondents did not indicate their age and length of service in the SA Army.

Recommendations

Based on the study, the following recommendations are made in terms of enhancing the retention of artisans within the military services:

- The South African National Defence Force (SANDF) and the SA Army need to revise the remuneration policy taking into consideration the different rank groups as there was a discrepancy in the way participants felt about remuneration.
- The SA Army should consider recruiting more women into the technical service mustering in order to enhance government imperatives and inclusivity.
- The SA Army should consider recruiting or developing an adequate number of officers by equipping them with a qualification beyond Grade 12 (for instance, bachelor's degrees) as these qualifications equip senior leaders with strategic managerial and leadership skills.

- Working conditions should be improved. This could be done by revising policies and procedures involved when artisans perform their job. Artisans should be empowered to find and fix technical and mechanical faults instead of only being limited to find and replace faulty parts. The facilities, such as workshops and kitchens, need to be revamped to the acceptable standard and be furnished with modern technology. Workshops need to be upgraded with the latest industry technology in order to ensure that artisans gain the same level of experience as their counterparts in the private sector.
- The SA Army should consider revising the promotion policy, so that it would be performance-based, as opposed to seniority-based. This will encourage quality output amongst artisans rather than keeping the *status quo* and passing time until the next promotion.
- The SA Army, and particularly the unit concerned, should provide more training interventions aimed at transformational leadership development, as well as create more awareness of the influence of leadership on employee retention.

Conclusion

The main aim of this study was to determine whether transformational leadership is a mediator in the relationship between satisfaction with remuneration and retention amongst artisans. The results clearly indicated that there is significant mediation between satisfaction with remuneration and compensation and transformational leadership. The results of the study could assist military base commanders in improving artisan retention levels through implementing effective transformational leadership development programmes. Talent management is a comprehensive, multidimensional concept with a myriad of perceptions that influence its effectiveness. It holds the potential to influence talent retention amongst military artisans. The effect of work prospects and preferences on turnover intentions changes consistently, which implies that enriching artisans' expectations of a 'brighter tomorrow' in their jobs could improve the probability of retention.

Acknowledgements

Competing interests

Authors' contributions

C.M.S. was the academic supervisor and was responsible for the design of the project. She also helped with the preparation of the manuscript. C.E.v.H. was the co-supervisor and was also responsible for the design of the project. Z.W.S. was responsible for the research and fieldwork and wrote this article.

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Implementing a total reward strategy in selected South African municipal organisations

Authors:
Patrick W. Bwowe[1] (iD)
Newlin Marongwe[2] (iD)

Affiliations:
[1]Department of Finance and Management, Walter Sisulu University, South Africa

[2]Division of Academic Affairs and Research Development, Walter Sisulu University, South Africa

Corresponding author:
Newlin Marongwe,
nmarongwe@wsu.ac.za

Orientation: The role of total rewards in achieving business goals, employee productivity and employee retention cannot be underestimated. A total reward strategy has been linked to the entire employee proposition making it a critical factor in the attraction and retention of talent in organisations.

Research purpose: The study focused on investigating the extent to which municipal organisations are implementing total rewards practices.

Motivation for the study: The study was motivated by the desire to explore the extent South African municipalities are implementing total rewards as a basis of their reward system and to find out which total reward practices are implemented by municipalities as part of their compensation and reward strategy.

Research approach/design and method: The study used an internet-based survey with a questionnaire to assess managers' perception of total reward strategy and the extent it is implemented in their organisations. A non-list-based random sampling technique was used to draw up a sample of 58 human resources managers from selected municipalities. Descriptive statistics was used to analyse the survey.

Main findings: The study found out that few of the responding municipalities had implemented the total reward strategy.

Practical/managerial implications: Municipalities should re-think their approach to compensation by ensuring that total rewards programmes are developed and implemented.

Contribution/value add: The findings contribute to new knowledge that can be used by municipal employers to attract the required talent capable of ensuring effective service delivery, through developing competitive reward strategies that can command high employee satisfaction, loyalty and commitment to the organisation.

Introduction

Reward management, as asserted by Armstrong, Brown and Reilly (2009), is concerned with the processes of developing, implementing, operating and evaluating reward policies and practices that recognise and value people according to the efforts and contributions they make towards achieving organisational, departmental and team goals. Organisations have put up reward systems consisting of the interrelated processes and practices of financial and non-financial rewards that combine into a total rewards approach to ensure that reward management is carried out to the benefit of the organisation and the people who work there (Armstrong & Taylor, 2014, p. 359).

Armstrong (2006) and Jiang (2009) refer to rewards as the compensation employees receive from organisations for their services. A reward strategy describes what the organisations propose to give their employees as a reward for their performance. It constitutes a framework for developing and implementing reward policies, practices and processes. And as Armstrong and Taylor (2014) assert, it is intended to achieve three major objectives: performance, competitiveness and fairness. It also provides answers to two basic questions: (1) what do we need to do about our reward practices to ensure that they are fit for purpose? And (2) how do we intend to do it? The two authors further observe that a reward strategy is a declaration of intent that defines what the organisation wants to do in the future to develop and implement reward policies, practices and processes that will further the achievement of its business goals and meet the needs of its stakeholders.

Theoretical framework

Reward strategies have their root in the content and process theory of motivation. The content theory of motivation focuses on factors that energise, direct, sustain and stop behaviour. Content theorists such as Maslow and Alderfer stressed the importance of need satisfaction in the motivation process, although there were some differences in their conceptualisation, categorisations of needs and their motivational levels (Alderfer, 1989; Maslow, 1943). On the other hand, the process theorists focussed on what drives, sustains and stops behaviour. Skinner and Belmont (1993), for instance, explained motivation to learn as consequences of teacher behaviour and student engagement while Adams (1965) contends that motivational programmes should be perceived as equitable and fair to all employees.

An important implication that can be derived from both the content and process theories of motivation is that decisions about rewards should be broad and holistic. They should take into account the fact that people have different needs at different times, and as such, flexible reward systems, which do not rely too heavily on financial rewards, should be developed. Rewards should not only be performance orientated but also be seen by employees as being fair and developmentally orientated. Reward programmes should enable employees to set goals to direct behaviour, ensure voluntary choices about how performance will occur and how it can be accomplished and what outcomes will employees choose as desirable.

The study is also rooted in the National Public Management (NPM) theory. The theory is a discrete set of ideas that can be broadly divided into two categories: firstly, where it advocates for the use of private management ideas, such as the provision of more responsive and efficient services, performance agreements including service standards, greater autonomy and flexibility for managers, new financial techniques; and secondly, the greater use of market mechanisms, such as privatisation and public–private partnerships in service provision (Cameron, 2009, p. 4). The use of total rewards strategy in municipal organisations as proposed by this study thus emanates partly from the views proposed in the NPM theory.

 In addition, the Constitution of the Republic of South Africa, 1996 provides in section 195 (h) that 'good human resource management and career development practices, to maximise human potential, must be cultivated'. Also, section 72 makes provision that the Minister of Department of Provincial and Local Government (DPLG) may, after consultation with the South African local government bargaining council (SALGBC), issue guidelines to provide for the development of incentives frameworks for staff members of municipalities. However, such incentive and reward system should not be in conflict with any local government legislation or binding ruling given by the DPLG, South African Local Government Association (SALGA) and/or SALGBC.

Kaur (2013) points out that people need better work relationships, work life balance, job security and salary and other benefits to keep them satisfied and contented. Hence intrinsic motivation and extrinsic motivation are important for performance of municipal tasks. Creating a working environment in municipal organisations where employees do their work well, have good relations with colleagues and where they can positively influence their workplace is imperative. Hence, the notion of total rewards which offers both financial and non-financial rewards comes into the picture.

Literature review

In the last few years the concept of total rewards has received tremendous attention in the total rewards research discourse with many researchers indicating the need for its implementation in the organisations (Armstrong & Taylor, 2014; Bussin & Toerien, 2015; Kaplan, 2012; Makhuzeni & Barkhuizen, 2015). The conceptual basis of total rewards stems from its holistic approach, or philosophy, which encapsulates the sum total of financial and non-financial rewards that an organisation may give to its employees (Armstrong 2006; Nazir, Shah, & Zaman, 2012; Tsede & Kutin, 2013).

Many authors have suggested examples of benefits that may accrue from the implementation of a total reward strategy. Heneman (2007, p. 3) suggests that total rewards, do not only encompass compensation and benefits but also 'personal and professional growth opportunities and a motivating work environment (for example, recognition, valued job design, and work/life balance)'. Terera and Ngirande (2014) found a positive relationship between rewards and employee retention and share a similar view with Heneman by suggesting that employers should try to create a total reward structure that includes both financial and non-financial rewards as a strategy to increase retention of talent. The two researchers conclude that 'rewards do not only fulfil financial and material needs, but also provide a social status and position of power within an organisation'. Kaplan (2012) on his part suggests that through total rewards design:

> Human Resources (HR) serves as a change agent, helping to connect the dots to reveal a picture of workforce synergy, with everyone focused on the attainment of common business goals. (p. 18)

Total reward strategies can also afford employers an opportunity to vary rewards across generational cohorts with rewards being tailored to the needs of a specific cohort (Bussin & Van Roy, 2014).

The role of total rewards benefits and their positive effect on employee motivation and retention as suggested in the earlier discussion has contributed to the significance and increasing attention that many organisations now put on reward restructuring processes. For instance, in one of the surveys on total rewards conducted in the autumn of 2011 by Aon Hewitt, one-half of companies that were surveyed

indicated that they expected total rewards to help them improve their ability to engage, retain and attract talent, while a similar number saw total rewards as a key lever to help drive improved business results (Aon, 2012).

Many authors have tried to outline the principle elements that constitute total rewards. Prominent among them is Fernandes (1998), who lists, among others, the following: basic salary, variable pay, pension benefits, death insurance benefits, private medical insurance, vocational entitlement, company schemes, share securities and mortgages. However, the total reward strategy model (TRM) that seems to be popular among HR practitioners and researchers is that of WorldatWork (2012), which classifies total rewards under six categories:

- **Compensation:** This provides reward for services rendered. It includes both fixed pay such as salary, variable pay like commissions and premium like the skill-based pay.
- **Benefits programmes:** This includes health, income protection, savings and retirement and Medicare, which provide security for employees and their families.
- **Work–life effectiveness:** A specific set of organisational practices, policies and programmes such as job security and teleworking. These programmes provide work flexibility to ensure that the employee manages effectively his work responsibilities and is also able to attend to personal problems and family-related issues.
- **Recognition:** Formal and informal programmes that acknowledge or give special attention to employee performance and contribution to organisational success.
- **Performance management:** The alignment of organisational, team and individual efforts towards the achievement of business goals and organisational success. This can be achieved through proper planning and employee evaluation.
- **Talent development:** It provides the opportunity for employee to improve their skills and knowledge through created training and learning opportunities.

The WorldatWork total reward management (TRM) model has become popular as it provides the basis for HR practitioners to experience the power of leveraging multiple factors to attract, motivate and retain talent and enable high-performing companies realise that their proprietary total rewards programmes have allowed them to excel and become more competitive (WorldatWork, 2012). Furthermore, it has broadened the research discourse on the total rewards by attracting researchers and HR consultants to increase their investigation on the impact of total rewards on talent retention.

However, it should be noted that the WorldatWork model is one but of many others that have sprung out in the literature explaining the significance of total rewards in explaining strategic reward options. The truth of the matter is that the model in essence encapsulates both the two motivational

rewards factors: extrinsic and intrinsic motivation. Many other total reward strategy (TRS) models and many researchers agree that a (TRS) should embrace these two factors. There is a consensus among researchers and HR practitioners that a TRS should be constituted of both financial and non-financial rewards. The differences in the different TRMs are the way benefits are categorised in each model. Hence, what is in the WorldatWork TRM is likely to be similar in other models except that naming or categorisation of these rewards may be different. For instance, another significant and well-recognised model by HR practitioners is that of Tower Watson (2016). Unlike the WorldatWork model, this one compresses employee rewards into three categories: (1) the career and environment rewards such as training and development, mentor programmes, career management programmes, talent mobility, discretionary technology, flexible work programmes, corporate social responsibility and well-being programmes (2) the performance-based rewards like base pay increases (merit, promotion), recognition, short-term incentives, long-term incentives, profit-sharing plans and lastly foundational rewards that encompass pay, health care, retirement, perquisites, allowances, life and disability, wellness benefits, wellness initiatives, employee assistance programme (EAP), voluntary benefits and time off. Comparatively, one would clearly see that there are great similarities between the two models.

By including both financial and non-financial rewards, the TRS can ensure that employees are motivated towards performance excellence while sending out a strong message about what is important to the business (Jean-Claude, 2007) and can also lead to more 'personal and a stronger emotional bond between employees and the company' (Aon, 2012, p. 4). Dalvi and Ebrahimi (2013) also talk of a well-designed reward system that creates a sense of belonging among employees and enhances employee growth and development, thus increasing employee self-esteem and ultimately lead to healthier organisations.

In other respects, organisations link rewards to performance objectives in order to promote justice and fairness among diverse groups of employees. If compensation is not linked to performance, it becomes difficult for employers to give recognition where it is deserved, and issues of unfairness may creep in. Similarly, rewards as noted by Molofo (2012, p. 75) are typically the outcome of performance evaluations and as such performance management system (PMS) should be used as a tool or measure to reward performance in various ways; for example, non-financial rewards such as recognition of achievement should be used in municipalities. This is also echoed by Baird, Schoch and Chen (2012) who assert that employees will feel valued if they are equitably compensated for their efforts and that without a link between performance and rewards, poor performers may not be motivated to improve

The challenge though is that in most municipal organisations, PMSs are very ineffective and there is low compliance in many municipalities. Hence, the idea of a using a PMS to

promote the TRS is likely to lead to impediments towards its implementation. However, this is not an excuse for municipal HR managers not to apply TRSs. By not undertaking reward restructuring, municipalities fall short of enjoying the benefits that are assumed to accrue from total reward strategies. There are many benefits that municipalities could exploit by using this strategy. Research on compensation pay systems has advocated for reward approaches that include benefits such as fairness and recognition. For organisations such as municipalities, which comprise diverse groups of employees, issues of equity, justice and fairness are of paramount importance and an effective pay system should be informed, among others, by these attributes. This is to ensure that employees do not perceive the pay system as being unfair. Moreover, 'pay systems are strategically designed when rewards are linked to activities, attributes and work outcomes that support the organisation's strategic direction and foster the achievement of strategic goals' (Howard & Dougherty, 2004, p. 41).

Municipalities should create a strong performance culture with effective rewards and sanctions (Engela & Ajam, 2010, p. 14) and should also ensure that rewards are linked to the agreed performance goals (Bussin, 2017). For instance, municipalities like Cape Agulhas developed a Performance Management Policy Framework, which aims not only at rewarding and recognising performance but also recognise that for this to happen good performance managements systems must be in place. The PMS should be characterised by the introduction of innovations that add value to the municipality and the broader community or by performing excellently in terms of own performance. Rewards that could be applicable could include improvement performance awards, merit certificates and year-end awards (Cape Agulhas Council resolution 125/2015).

Problem statement

The role of total rewards in achieving business goals, employee productivity and employee retention cannot be underestimated. A total reward strategy has been linked to the entire employee proposition, thus making it one of the most critical factors in the attraction and retention of talent in organisations. While there are profound arguments for organisations to develop and implement total reward strategies, many organisations, including South African municipalities, are still using traditional reward systems, where compensation is dominated by base pay and benefits. The problem with traditional reward systems is that they do not communicate or support strategic business priorities and are inflexible and not reflective of business results (Jean-Claude, 2007). They are based on tenure, entitlement and internal equity. Furthermore, when a total reward approach is used, it can result in 'well-structured reward systems, which can enhance satisfaction and fairness' (Howard & Dougherty, 2004, p. 41). It is against the backdrop of these assertions that this paper wishes to investigate and explore the extent South African municipalities are implementing total rewards as a basis of their reward system and to find out which total reward practices are implemented by municipalities as part of their compensation and reward strategy.

Goal of the study

The goals of the study were to:

- investigate the extent municipalities use total rewards as part of their reward strategy
- provide suggestions or recommendations as to how municipalities would establish favourable conditions for the implementation of total reward practices for their employees.

Research methodology
Research design

The research design for the study was internet-based, using a questionnaire as the main data collecting tool. The main contact and response mode was e-mail. A non-list-based random sampling technique was used to draw up a sample of 58 human resources managers from selected municipalities. One hundred and fifty-eight municipalities were randomly selected from all the nine provinces to request for their contacts and willingness to participate in the survey. Of the contacted municipalities, only 58 declared their intention to participate. Of the 58 municipalities that participated in the online survey, only 23 returned their questionnaire, thus giving a response rate of 40%.

This sampling technique was chosen because it was difficult to have an existing list of e-mail addresses of managers to serve as the sample frame for the selected municipalities. The e-mail list that was assembled by the researchers was in addition used as the sample for the study. This is in agreement with Fricker's suggestion (2008) that surveys using non-list-based sampling allows for the selection of a probability-based sample without the need to actually enumerate a sampling frame.

The study was based on six itemised variables that were presented in the form of a questionnaire. One of the six items (extent to which municipalities have adopted total reward strategies) was treated as a single variable. It explored the extent to which municipalities use total reward strategies as part of their rewards practices. Each of the remaining five items was identified as a reward practice that could form part of an organisational total reward strategy. Therefore, respondents were asked to indicate whether each of those practices form part of their strategy. The questionnaire was first pretested to some of the researchers' colleagues and a few of respondents to the survey. An informed consent form was sent to participants to explain to them the objectives, nature and type of research and to ensure that the main ethical issues related to this survey were clearly explained to them before they could decide to participate. Permission to conduct survey was granted by either the municipal managers or HR managers depending on the protocols followed by each municipality. The overall response to the

study was 40%, with the most positive response coming from the metropolitan at 80%, followed by district municipalities at 58%, and last, the local municipalities at 29%.

Data analysis

Data collected were tabulated and analysed using the descriptive statistics generated by the Statistical Package for Social Sciences. A reliability analysis was also conducted on five of the six items of this study with a view to understanding the level or degree of internal consistency and the reliability of the variables in the group scale. Furthermore, this analysis established the degree of internal relatedness among items in the scale. Findings indicated a high degree of internal consistency among the items in the scale with a Cronbach's alpha of 0.865.

Results

This variable was intended to assess the extent to which municipalities are implementing total rewards as part of their compensation system. A significant number of the respondents (76.2%) indicated that their organisations do not use this strategy, while only 23.2% believed that their organisations did so (See Table 1). The results show that to a large extent municipal organisations are not implementing the total reward strategy.

Table 2 presents the results from five selected practices that the study used to explore and evaluate further the extent to which municipal organisations have implemented total rewards practices as part of their rewards strategy. Table 2 shows the extent to which municipalities use selected practices as part of total reward strategy.

On whether components of their organisation's rewards strategy included monetary compensation, fringe benefits and development opportunities, results were inconclusive because of the fact that those respondents who believed that their strategies did so (35.7%) were exactly the same number as those that believed their organisational reward strategy did not. However, there was a slightly reasonable percentage of those who were probably unsure or undecided (28.6%), which could probably indicate uncertainty in relation to the implementation of total reward strategies in municipalities.

When respondents were asked to indicate whether their rewards strategy provided meaningful pay differentiation to high performers or high potentials through both base and variable pay, more than half (56.4%) were of the opinion that their reward strategies did not. Fewer than 10.0%, agreed and over a third (35.7%) were undecided or unsure.

On whether their reward strategies ensured that pay and recognition were proportional to employees' performance, a significant number of respondents (71.5%) disagreed with this statement. This is a clear indication that municipal reward strategies of the participating municipalities do not match rewards and compensation with performance and recognition of employees.

Respondents were further asked to indicate whether they agree with the statement that their organisational pay system is designed to promote justice and fairness among the diverse groups of employees. Results show that more than two-thirds (67.2%) of the respondents do not agree with this statement. Just over a third (35.7%) agreed and 7.1% were undecided or unsure. These results clearly show that reward strategies of the responding municipalities are not perceived to promote justice and fairness through prioritising issues such as gender, age, ethnicity and so on in their remuneration strategies.

On whether reward strategies were compliant to the legal prescripts and to the corporate governance of South African

TABLE 1: Extent to which municipalities have adopted total reward strategies.

The extent to which municipalities use total reward strategies	Categorical responses	Frequency	%	Valid %	Cumulative %
Valid	Yes	5	21.7	23.8	23.8
	No	16	69.6	76.2	100.0
	Total	21	91.3	100.0	-
Missing	System	2	8.7	-	-
Total		**23**	**23.0**	-	-

TABLE 2: Extent to which municipalities use selected practices as part of total reward strategy.

Variable	Strongly disagree (%)	Disagree (%)	Neither agree nor disagree (%)	Agree (%)	Strongly agree (%)
Components of my organisation's total rewards strategy include monetary compensation and benefits and development opportunities	14.3	21.4	28.6	35.7	-
Our reward strategy provides meaningful pay differentiation to high performers or high potentials through both base and variable pay	28.8	28.6	35.7	7.1	-
Ensure that pay and recognition are proportional to employees' performance	28.6	42.9	14.3	14.3	-
The pay system is designed to promote justice and fairness among the diverse groups of employees	14.3	42.9	7.1	28.6	7.1
The reward strategy is compliant to the legal prescripts and to corporate the governance of South African municipalities	18.2	-	27.3	36.4	18.2

municipalities, more than half (54.6%) of the respondents agreed that their reward strategies were compliant. Only 18.2% disagreed, while 27.3% were undecided. It would seem that this level of compliance is probably a result of other stakeholders' intervention, such as the government and municipal councils. However, the fact that just over 50.0% agreed is a testimony that even compliance still falls far short of the ideal position that is required from municipalities to comply with the legal prescripts and corporate government

Discussion

Findings clearly indicate that to a large extent municipal reward system still relies on traditional methods of compensation. This is underlined by the key findings which revealed that more than two-thirds of the participating municipalities have not developed total reward strategies. These findings are replicated in other studies and surveys. For instance, the SARA SURVEY, a South African study by Ernst & Young (Sika, 2014) indicates that only 45% of the investigated companies successfully implement total rewards and just 21% plan to implement total rewards. The Thomson Survey (2011) as indicated in Sika (2011) also indicates that only 38% of those companies that participated in their survey have a written reward strategy.

According to Aon (2012, p. 10), organisations are putting great interest in finding ways to unlock the potential that total rewards offers as a management tool, but 'are struggling to find the right combination'. Furthermore, a total rewards strategy as Aon (2012, p. 22) continues to suggest that 'the map that guides the management of rewards programmes, yet it seems as though most firms have chosen a destination but are navigating without a map'. It is clear that in most organisations there is will to implement TRS but seemingly there is a lot more for most organisations, including South African municipalities to learn before they can be able to implement successful total reward strategies. What is clear today is that many of these organisations are now spending huge sums of money and putting great effort into the re-designing of their reward strategies (Aon, 2012; Howard & Dougherty, 2004; Jean-Claude, 2007).

Findings from the study to a large extent indicate that compensation practices in municipalities include both monetary compensation and non-monetary benefits. However, they fall short of including development opportunities for employees. In addition, a significant number of the responding organisations in the study reveal that municipal pay systems do not attract high performers (Howard & Dougherty, 2004). This limitation as seen in current literature is likely to undermine retention efforts in organisations (Jean-Claude, 2007; Howard & Dougherty, 2004; Kaplan, 2012). High-performing organisations, as McCormick (2015, p. 5) asserts, 'Differentiate rewards to create an external competitive advantage and target critical internal populations like high-potential employees, top performers, and women to develop, engage, and retain employees'. In addition, they also actively and regularly communicate their total rewards strategy to employees.

Research on compensation pay systems has advocated for reward approaches that promote intangible rewards such as fairness and recognition. Organisations link rewards to performance objectives and should promote justice and fairness among the diverse groups of employees. The key finding for this study reveal municipal pay systems that are not designed to promote justice and fairness.

These findings tend to concur with the findings revealed in the SALGA study (2010) where municipal managers and managers directly accountable to the municipal managers, within the same classification of municipalities, were found to be paid very different salaries. The COGTA Report also shows gender salary gaps and gaps among employees belonging to different ethnic backgrounds (COGTA, 2009). In addition, there are wide variations in the salary scales of employees in similar size municipalities, as noted by the National Treasury Budget Review (COGTA, 2009). This kind of perceived unfairness in pay systems may lead to stress, which may subsequently, contribute to costs of turnover, accidents and illness (Howard & Dougherty, 2011).

In a study that was conducted in 2004 by Pricewaterhouse-Coopers (McCormick, 2015), pay satisfaction and perceived pay equity were identified as key drivers of retention. The perceived inequity in the municipal pay system is likely therefore to increase turnover problems and has also the capacity to worsen the scarce skills gap in these organisations. It may be argued further that perceived unfairness arouses 'dysfunctional emotions, including anger, depression and anxiety that can contribute downstream to undesirable responses, including theft, absenteeism and alcohol use' (Howard & Dougherty, 2004, p. 42). These problems mentioned may affect the level of organisational commitment (OC) of employees of municipalities (Dzansi & Dzansi, 2010). It is therefore imperative that municipalities being public entities should be encouraged to develop pay systems that promote justice and fairness to all employees. However, the problem, as Brewer and Kellough (2016) assert, will be how managers and supervisors are able to find the right balance between the need for the flexibility necessary to guide their organisations effectively and the simultaneous need to ensure fairness and equity in the way employees are treated.

It is clear from the findings that municipalities' pay systems are not aligned to employees' performance and employees are rarely recognised for their performance. More than two-thirds of the respondents in the study perceive this to be true. According to Howard & Dougherty (2004, p. 43), reward strategies can be tied to 'individual output to encourage individual work effort; group output to encourage teamwork and collective effort and human capital to encourage development of skills and flexibility…' The feeling of individual's performance not being recognised can have a great impact on one's motivation and commitment to the organisation. Key findings on compliance to the legal prescripts and corporate governance show average levels of

compliance. However, these findings may be viewed sceptically. Compliance to legal prescripts and good corporate governance would be promoted by fair and equitable elements in the pay system, which according to key findings for this study, are lacking.

Conclusion

The researchers do not doubt the insurmountable challenges that face municipal HR managers in their quest to develop and implement total rewards strategies. The greatest challenge to municipal organisations is the severe shortage of skills as well as human resources (Financial and Fiscal Commission Policy Brief, 2012; Koma, 2010). The situation is even worsened by a high turnover rate and budget limitations. Municipalities also suffer from political and union interference, which in some cases can influence or undermine strategic HR decisions later alone inculcating bureaucratic tendencies of municipal employees to execute established policies by politicians. Added to this also is the issue of poor PMSs, which are only aimed at mostly section 57 managers. Section 57 is a term commonly used to refer to managers employed in accordance with the requirements of the Republic of South Africa (RSA, 2000) section 57 of the *Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000)*. They consist of the municipal manager or the accounting officer, the chief financial officer, all senior managers and any other senior officials designated by the accounting officer.

The fact that most municipalities have not cascaded their PMS to other employees at the lower levels is a problem in that a large part of the employees at the lower levels do not actively go through efficient performance evaluation and monitoring processes, thus rendering them unsuitable to performance related benefits and promotions.

However, researchers have pointed out that the contribution total rewards benefits can make on the motivation and retention of employees in organisations is quite immense such that it would be in the interest of municipalities to try and implement reforms dedicated at the restructuring of their rewards systems. In an environment where employees are increasingly becoming knowledgeable of competitors pay packages, where global competition continues to tighten and where many employees are becoming more and more attracted to diversified pay packages (Bussin & van Roy, 2014), the survival of organisations will depend on how best and most effective such organisations can design and implement rewards systems that can develop, engage, motivate and retain employees. This paper tries to offer or suggest ways in which municipalities can create favourable conditions to respond to the issue of how a total reward strategy could be implemented in the municipal sector.

Recommendations

The current compensation and reward practices in municipalities in the study expose weaknesses in relation to

the development and implementation of total reward strategies. The study findings are clear that municipalities are still using traditional remuneration policies. This to a great extent is a result of the many challenges identified in the previous section that municipal organisations face. In light of the fact that these challenges are not likely to go away soon, the paper therefore proposes the following recommendations to assist municipal HR managers in creating favourable conditions for the implementation of a total reward strategy.

Firstly, for municipalities to become employers of choice that can attract the required talent capable of ensuring effective service delivery, they will need to develop competitive reward strategies that can command high employee satisfaction, loyalty and commitment to the organisation. Such strategies should be aligned to organisational goals; employee needs; recognition; and employee performance, evaluation, training and development. How to navigate through this undertaking, municipal organisations need to devote large amounts of resources to train and develop managers in the design and implementation of the TRSs. In dealing with the question of budget limitations and other external challenges such as the bureaucratic tendencies, political and union interference, managers will need to enter into corroborative efforts and partnerships with other stakeholders, such government (DPLG), unions, SALGBC, SALGA and where possible private organisations to seek a common understanding on how compensation and rewards reform decisions could be initiated and implemented.

Secondly, as part of internal management and control, municipalities need to consider seriously the implementation of performance evaluation and monitoring of all their employees because as already indicated in the previous sections of this paper, employee rewards need to be linked to performance in order to compensate for the top performers and also reward those that make strides to improve their performance. The cascading of PMs in municipalities can be achieved through effective communication and negotiations with all stakeholders, especially trade unions and employees in their respective work units. However, in the meantime, municipal managers can also exploit the little available avenues created by legislations such as the South African Constitution, the *Public Finance Management Act* and the *Local Government and the Municipal Systems Act, 2000 (Act No. 32 of 2000)*, etc. to find out as to what extent such legislations can permit them to engage in some form of performance evaluation, monitoring and accountability at all levels.

Also, municipalities should strive to improve on their compliance to the implementation of PMSs, accountability processes and also work hard to produce clean audits because these audits contribute to the level municipalities can be afforded to work independently and the level they can be financed. Clean audits can also improve the municipal sector's image to attract skilled employees from outside.

Last but not least, leveraging HR issues like employee rewards to organisational top priorities will ensure that the process is supported from the top and therefore seen as a strategic issue. This will assist HR managers to get the 'buy in' they need while selling the idea of total reward strategies to top officials, unions and the government and other strategic partners.

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Authors' contributions

P.W.B. (principal investigator) made the conceptual contribution and theoretical framework, did literature review, did the reference section, collected data, did the analysis of data and discussion of results, did the conclusion and recommendations and compiled the first draft. N.M. compiled the abstract, did the research design, collected data, contributed to the discussion of results and recommendations, compiled the second draft, restructured and compiled the final draft and did the referencing section and the proof-reading.

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Generational differences in workplace motivation

Authors:
Marita M. Heyns[1] ⬤
Marilyn D. Kerr[2]

Affiliations:
[1]Optentia Research Focus
Area, North-West University,
South Africa

[2]North-West University
Business School, North-West
University, South Africa

Corresponding author:
Marita Heyns,
marita.heyns@nwu.ac.za

Orientation: Despite increasing age diversity in the workforce, organisations still know relatively little about how potentially diverging motivational needs of the various generations might influence motivational strategies and organisational performance.

Research purpose: To explore the relationship between multigenerational workforces and employee motivation within a South African workplace setting from a self-determination theory perspective.

Motivation for the study: The pursuit of performance excellence requires an understanding of the enablers of optimal performance. In South Africa, the workplace landscape is changing fast as younger generations are joining the workforce in rapidly growing numbers. These younger employees are often believed to differ quite drastically from the older generations in terms of their values and priorities, which necessitates a deeper understanding of the motivational drivers of the different cohorts as these manifest within a workplace environment.

Research approach/design and method: A cross-sectional survey approach and a quantitative research design were used ($N = 164$). Two questionnaires founded on self-determination theory were administered, namely the Work-Related Basic Need Satisfaction Scale and the Work Extrinsic and Intrinsic Motivation Scale.

Main findings: Findings contradict the popular notion that generational cohorts differ significantly from each other in terms of diverging intrinsic and extrinsic motivational preferences that may influence their behaviour at work. With regard to the degrees of satisfaction of the basic psychological needs that drive autonomous, intrinsically motivated behaviour specifically, no practically significant differences were found either. There was, however, one notable difference, namely in the indicated degree of satisfaction of the psychological need for autonomy between Generation Y and Generation X cohorts.

Practical/managerial implications: Management is advised to cultivate a motivational climate that promotes autonomously motivated behaviour in general and to focus on specific known individual motivational preferences that may exist within groups rather than approaching generational cohorts as homogenous groups.

Contribution/value-add: This study contributes to the limited research regarding similarities and differences in the intrinsic versus extrinsic motivational stance of three different generations as these manifest within a workplace setting in an emerging economy country. Findings afford management insight into motivational processes that are most influential among generational cohorts and assist them in adapting suitable motivational strategies that can ultimately improve retention of valued employees.

Introduction

Key focus of the study

This study seeks to extend generational research by employing a self-determination theory (SDT, Deci & Ryan, 2000; Gagné & Deci, 2005) perspective to examine the relationship between multigenerational workforces and employee motivation within a South African workplace setting.

Background

The pursuit of performance excellence requires an understanding of the enablers of optimal performances (Linley, Harrington & Garcia, 2013), especially in view of a changing workplace landscape where increasing age diversity necessitates a deeper understanding of the needs and values of the different cohorts (Martins & Martins, 2014).

Changing workforce demographics has become a particular concern for leadership because now, for the first time, there exists the possibility of four age generations working side by side in

today's work environment (Ballone, 2007; Haynes, 2011). The increasing mix of generations has added both cherished diversity as well as complexity to the workplace (Linley et al., 2013) because of more pronounced differences between cohorts that influence their attitudes and behaviour at work as compared to previous generations, which were more similar to each other (Burke, Cooper & Antoniou, 2015).

The different cohorts – Veterans, Baby Boomers, Generation Xers and Generation Y (also known as the *Millennials*) – are often described as each having their own distinct characteristics, work values and motivators that may have an effect on both individual and organisational performance (Burke et al., 2015) and that may have far-reaching implications, including for organisational human resource processes (Jonck, Van der Walt & Sobayeni, 2017), motivation and retention strategies (Burke et al., 2015). A longitudinal study by Krahn and Galambos (2014), for example, associated Generation Y with a stronger emphasis on extrinsic work values and more job entitlement, while other studies associated this generation with a greater preference for materialistic rewards and work–life balance (Burke et al., 2015). In line with this view, Twenge and Donnelly (2016) found that younger generations increasingly emphasise extrinsic values.

The perceived uniqueness of the generations suggests each is likely driven by different motivators, which, in turn, accentuates the need to have insight into how to best motivate each generational group (Durkin, 2011).

Organisations still know relatively little about the impact of age diversity on their performance and how to deal with generational diversity in the workplace (Burke et al., 2015; Martins & Martins, 2014). Linley et al. (2013) illuminate this point by warning that, although some differences across generations do affect each cohort in distinctive ways, there are also indications that many of the perceived differences – including those in values and attitudes towards work, colleagues and use of technology – across generations can actually be ascribed to stereotypical myths or, at best, to the influence of different contexts.

There is a specific need to conduct generational cohort studies in developing countries (Jonck et al., 2017; Martins & Martins, 2014) and especially in a South African context, for it has faced some unique challenges because of its politically and socially divided past, which has caused fragmentation – not all social groups, including generations, have been affected by historical events in the same way. Also, most of the existing generational research studies have been conducted in developed Western countries, which raises concern regarding the generalisability of findings to developing countries such as South Africa (Jonck et al., 2017).

In addition, previous research focused on broad differences in motivational drivers across generations but paid scant attention to how these manifest within the workplace or, at best, tended to focus on work values but not on generational differences in work motivation per se (Burke et al., 2015; Wong, Gardiner, Lang & Coulon, 2008).

This study focused on motivational levels of the multigenerational workforce of Rand Water, a parastatal and a national key point that is responsible for supplying quality water to millions of households in South Africa. Rand Water is invested in supporting the development of the younger generations and those previously disadvantaged in South Africa. Older employees also remained loyal to Rand Water, which has resulted in a work environment that sees employees representing a broad range of age groups. As Rand Water continued to focus on the empowerment of staff across generations, they found themselves in a situation where an abundance of resources was a thing of the past, and they were forced to work with less to create higher levels of output. This global trend aims towards increasing work output levels among employees, while facing challenges such as increased multigenerational workforces and the need to effectively motivate each generation, has created an urgent need for an understanding of how to motivate employees to the point that they bring 100% of themselves to their work.

Self-determination theory is a prominent, macro theory of motivation (Deci & Ryan, 2014; Gagné & Deci, 2005) that offers a potentially useful lens through which potential differences in the motivational stance across generations can be studied within the organisation of interest. This theory distinguishes itself from more conventional motivation theories because SDT not only expanded on the cognitive evaluation theory to include extrinsic motivation, but it further provides a distinction between autonomous and controlled motivation that does not focus on the total amount of motivation as such but rather on the relative strength of controlled versus autonomous motivation a person experiences. In other words, SDT does not merely focus on motivation as internally or externally driven but further differentiates between subtypes of motivation that are seen as falling along a continuum of internalisation (Deci & Ryan, 2000; 2014; Gagné & Deci, 2005). As such, SDT can offer more precise information regarding how generational groups relate to specific drivers of motivation.

Research objectives

The general aim of this research was to explore the nature of motivational processes from a multigenerational workforce perspective by using SDT (Deci & Ryan, 2000) as a point of departure. To be more precise, this study assesses whether generations differ in terms of their extrinsic versus intrinsic motivational stance and their basic intrinsic motivational needs for autonomy, relatedness and competence as these manifest among the workforce of an organisation that supplies quality water to millions of households in South Africa.

Trends from the research literature

A generation, also known as a *cohort*, shares a collective identity that was brought about by shared life stages that

shaped the culture of a particular historical period (Hoole & Bonnema, 2015). Although there is no specific consensus among researchers regarding the precise birth years for each of the different generations (Wong et al., 2008), there is agreement that there are four broad generations of employees that can be classified, of which the three groups most represented in the workplace are the *Baby Boomers* (generally accepted to be born between 1945 and 1964), *Generation Xers* (born 1965–1981) and the *Millennials* (born 1982–2000).

A strong internalised work ethic and career-focused approach to life have meant a perception of the Baby Boomers as ambitious, driven employees who are status conscious (Ballone, 2007; Hoole & Bonnema, 2015) and define their identity as an extension of their careers (Durkin, 2011). A review of the existing literature (e.g. Hart, 2006; Loomis, 2000;) suggests that this group of employees is seen as preferring stability and job security, that they respect a corporate hierarchal structure and prefer a leadership style that is unified and consistent in the work environment (Ballone, 2007). Baby Boomers gravitate towards building consensus among their colleagues (Hart, 2006:26). Valuing the personal touch (Haynes, 2011) and preferring face-to-face contact (Hammill, 2005) mean that this generation is more likely to act as effective mentors. It is through work and personal sacrifice (Glass, 2007) that Baby Boomers believe they will attain financial success. They are motivated by raises and promotions (Ballone, 2007). It is likely that Baby Boomers feel the younger generations do not work as hard as they do, partially derived from the latter group's preference for flexible hours, working from home and for having virtual offices (Glass, 2007).

In stark contrast with the Baby Boomers, *Generation Xers* value the life–work balance above all else (Glass, 2007; Hoole & Bonnema, 2015). As a group, they are classified as showing a higher degree of scepticism, less loyalty and being strongly independent (Burke et al., 2015; Glass, 2007), as well as demonstrating a higher level of self-sufficiency than shown by previous generations (Hart, 2006). Although a tendency to question and challenge their colleagues in the workplace is apparent, thus potentially leading to conflict, this quality also acts to encourage entrepreneurial behaviour (Hammill, 2005). Generation Xers expect recognition and rewards to be realised within a short time frame, they expect to be included in all aspects of the business and to be provided with regular opportunities for career growth (Ballone, 2007). Placing their own personal goals above their work-related goals, this group goes where the challenges, higher earning potential and better benefits exist (Loomis, 2000). Flexibility in work life is greatly valued by Generation Xers and they are likely to pass up a promotion if they believe it will infringe on their home life in any way (Ballone, 2007). From their viewpoint, it does not matter how or where the work is done; the outcome is what should be valued and not the process to get there (Glass, 2007).

The most confident of the generational groups, the *Millennials*, grew up with child-focused parents, who were intent on building their children's self-esteem and showing continuous dedication in raising them (Glass, 2007). As a consequence, this generation is characterised by their expectation to be recognised on an equal footing with their peers and to be involved in a work environment that is diverse and encourages participation in work teams (Ballone, 2007; Hoole & Bonnema, 2015). They have developed the ability to multitask, a consequence of 24/7 connectivity (Hammill, 2005). Skills development and the challenges afforded by new opportunities typify Millennials (Hart, 2006). Demonstrating some similarity with the Baby Boomer generation, Millennials are seen as optimistic and driven employees who are demanding of their work environment (Burke et al., 2015). Ultimately, for this generation technology forms a natural part of their lives, and as such they prefer to communicate and live in real time, through the use of cell phones, text messages and so on (Ballone, 2007), rather than picking up the telephone or having a face-to-face conversation (Glass, 2007).

Self-determination theory

According to SDT, motivation can be internally or externally driven. Extrinsic motivation occurs when individuals partake in activities not because they have a particular interest in them but because those activities function as a means to an end. The actions undertaken by individuals driven by intrinsic motivation, on the other hand, are fuelled by the want to do the activity and the satisfaction derived from the successful completion of the task; thus, intrinsic motivation can be said to be autonomous motivation (Deci & Ryan, 2014; Ryan & Deci, 2000). The key to autonomous regulation is based on satisfaction of the basic psychological needs for competence, autonomy and relatedness. *Autonomy* is the need to feel that you have a choice in the decision to be made; *competency* is a belief in one's ability to complete a task, and *relatedness* is the need for relationships that are supportive and meaningful in nature (Deci & Ryan, 2014; Meyer & Gagné, 2008; Ryan & Deci, 2000).

Autonomously motivated employees are likely to realise better outcomes for both themselves and their employers, through improved effective performance and higher levels of well-being (Gagné & Deci, 2005; Nel, 2014). Limited satisfaction of the psychological needs is likely to result in a decreased level of performance and even a reduction in an individual's physical and psychological well-being (Meyer & Gagné, 2008). Many organisational studies using the SDT have provided support for the hypothesised contention that environments that are autonomy-supportive facilitate the promotion of intrinsic motivation, as well as the internalisation of extrinsic motivation, thus acting to increase satisfaction and performance outcomes (Deci & Ryan, 2014; Van den Broeck, Vansteenkiste, De Witte, Soenens & Lens, 2010; Vansteenkiste et al., 2007).

Organismic Integration Theory is a sub-theory of SDT that aims to explain how behaviours once extrinsically motivated through external forces can become internally regulated via an internalisation process. Figure 1 illustrates the relationship
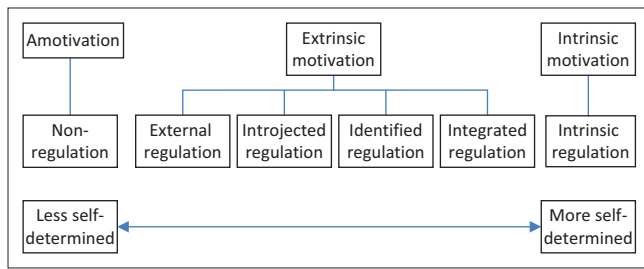
FIGURE 1: The self-determination continuum.

between the various motivational aspects and describes the degree to which external regulation can be internalised in a self-determination continuum (Ryan & Deci, 2000). It is not suggested the continuum is developmental in such a way that employees need to progressively move from controlled motivation to autonomously motivated behaviour through each stage of internalisation; rather that internalisation of a more autonomous behavioural regulation can occur at any point on the SDT continuum given specific individual life experiences and opportunities presented by the immediate environmental circumstances (Ryan & Deci, 2000).

Amotivation and intrinsic motivation, being the two extremes of the continuum, respectively represent the total lack of intention to act (amotivation), that is, going through the motions, and a highly autonomous state (intrinsic motivation) characterised by the desire to perform a task purely for its inherent satisfactions (Ryan & Deci, 2000).

In the centre of the continuum are the extrinsically motivated behaviours, which range from lowest self-determined behaviour to the highest – specifically, from external regulation through to integrated regulation. *External regulation* refers to behaviours that are controlled by external contingencies – the individual feels forced to comply. Each progressive rightward move along the continuum involves increased levels of personal acceptance and ownership of an external regulation, into the creation of an autonomous form of extrinsic motivation. *Introjected regulation* refers to behaviours that are still motivated by external rewards or punishments, but performance of the activities are controlled by the individual self rather than by others, that is, for an internally pressing reason. *Identified regulation* refers to a process that involves accepting the underlying value of an activity, such as when the goal of behaviour is personally endorsed and considered important, but extrinsic factors still play some role. *Integrated regulation* refers to the most complete form of internalisation of extrinsic motivation, namely, an acceptance of an activity because it fits into the individual's set of values and beliefs and is congruent with the true self (Nel, 2014; Ryan & Deci, 2017).

Ultimately, the basic premise of SDT is the degree to which behaviour may be autonomous versus the degree to which it is controlled, where autonomous motivation includes intrinsic motivation as well as identified and integrated regulation and controlled motivation encompasses external and introjected

regulation (Gagné & Deci, 2005). Quoting Kasser et al. (2004), Vansteenkiste et al. (2007) state that individuals who are more likely to be intrinsically rather than extrinsically orientated will engage in those activities that function to satisfy their psychological needs, ultimately leading to positive job outcomes. For the converse, a mindset that is extrinsically orientated may hinder or interfere with growth (Vansteenkiste et al., 2007).

Relationship between motivation and age groups

No previous studies could be identified that examined potential generational differences specifically from an SDT motivational perspective. When considering motivation in general, previous research seems to produce conflicting results regarding the extent to which generations differ in what they consider as important motivational drivers. Kooij, De Lange, Jansen, Kanfer and Dikkers (2011) and De Lange, Bal, Van der Heiden, De Jong and Schaufeli (2011) have provided empirical evidence that supports the viewpoint that, while extrinsic work motivation decreases with age, intrinsic work motivation does the opposite and in fact increases. In examining demographic correlations that may exist among age groups and intrinsic motivation, a significant positive correlation was demonstrated between age and intrinsic motivation; however, no such parallel correlation was observed for age groups and extrinsic motivation.

Giancola (2006) provided an opposing viewpoint and stated that the differences perceived among the different generations were not substantiated by empirical evidence and in fact motivational drivers among the cohorts are actually surprisingly similar. Support for Giancola's viewpoint was provided by Wong et al. (2008), who, after conducting a large-scale cross-sectional study, were able to conclude that the differences identified among motivators were better explained by age differences rather than generational differences. Finegold, Mohrman and Spreitzer (2002) were able to identify significant differences among different age groups regarding a number of working relationships, including satisfaction with work–life balance, but found no significant relationship between generational groups and motivation. Brislin, Kabigting, MacNab, Zukis and Worthley (2005) and Travis (2007), in an examination of demographic correlations and intrinsic motivation among a sample population, found no significant correlation between the variables of age and motivation.

In view of seemingly conflicting results found in previous literature, this study sets out to investigate the following research questions: Do generational cohorts employed by Rand Water at the site of interest differ significantly from each other in terms of (1) their extrinsic versus intrinsic motivational stance and (2) the three basic intrinsic motivational needs for autonomy, relatedness and competence?

Potential value-add of the study

This research contributes to the existing generational literature by extending its focus to an emerging economy, specifically by

highlighting similarities and differences in motivational stance between three generations – Baby Boomers, Generation Xers and Millennials – in a workplace setting that is considered to be of national interest to South Africa.

To the best of our knowledge, no previous empirical research exists that employed the SDT of motivation as proposed by Deci and Ryan (2000) to examine potential differences between generational groups within an emerging economy setting. Gaining a better and more specific understanding of what underlying motivational processes drive each generational cohort – whether it be an equal combination of intrinsic and extrinsic factors, or with one dominating the other – can support managers in finding suitable motivational strategies that are properly aligned with the needs of each cohort so that staff are more likely to function to their full potential and remain with an organisation in the longer term.

Findings may further afford management with insight into motivational processes that are most influential among generational cohorts at Rand Water, an important national asset of the country, and assist management in adapting suitable motivational strategies to enhance performance and ultimately improve retention of valued employees.

Research design

Research approach

A quantitative, cross-sectional survey design was used.

Research participants

The target population consisted of employees of a Rand Water pump station that is situated in Gauteng Province, South Africa. A total of 488 questionnaires were distributed, and 164 questionnaires were completed and returned, which represents a response rate of 33.6%. More males (65%) than females participated; 77% of the sample group indicated that they were black people. The majority (48%) of the respondents indicated that they had a matric certificate as their highest qualification. When reviewing the duration of employment, 48% of the respondents indicated that they had been employed in excess of 10 years. Generation Xers represented the majority, with 59% of respondents falling within this category, followed by the Millennials (22%) and the Baby Boomers (19%).

Measuring instruments

A biographical questionnaire and two measuring instruments were used. The Work Extrinsic and Intrinsic Motivation Scale (WEIMS, Tremblay, Blanchard, Taylor, Pelletier & Villeneuve, 2009) was employed to determine employees' motivational stance in terms of extrinsic versus intrinsic motivation. The WEIMS is an 18-item measure of work motivation theoretically grounded in SDT (Deci & Ryan, 2000). The WEIMS is divided into six sub-scales (each with three corresponding items), corresponding to the six types of motivation postulated by SDT, namely, intrinsic motivation (e.g. 'because I derive much

pleasure from learning new things'), integrated regulations (e.g. 'because it has become a fundamental part of who I am'), identified regulations (e.g. 'because this is the type of work I chose to do to attain a certain lifestyle'), introjected regulations (e.g. 'because I want to succeed at this job; if not I would be very ashamed of myself'), external regulations (e.g. 'for the income it provides me') and amotivation (e.g. 'I don't know; too much is expected of us'). The instrument makes use of a Likert-type scale ranging from 1 (*does not correspond at all*) to 5 (*corresponds exactly*), representing the reasons that the participants are presently involved in their work. Satisfactory alpha-coefficients with values > 0.7 (Field, 2014) for each of the subsections were initially established by Tremblay et al. (2009).

In addition, the Work-Related Basic Need Satisfaction Scale (WBNSS; Van den Broeck et al., 2010) was used to measure each participant's satisfaction with three intrinsically motivating psychological needs, namely autonomy (e.g. 'I feel like I can be myself at my job'), competence (e.g. 'I am good at the things I do in my job') and need for relatedness (e.g. 'at work, people involve me in social activities'). The scale made use of a five-point rating scale, varying from 1 (*totally disagree*) to 5 (*totally agree*). CFA results favoured the three-factor structure of the questionnaire, and reliabilities of the autonomy, competence and relatedness satisfaction scales were on average 0.81, 0.85 and 0.82, respectively (Van den Broeck et al., 2010).

Research procedure

Ethical clearance to conduct the study was approved by the School for Business and Governance of the North-West University of South Africa. The Human Resources director of the selected Rand Water plant provided permission for the questionnaire to be administered, in printed form, to the participants. The aggregated results of the study had to be provided to Rand Water for their own internal review. Participation was entirely voluntary and participants were aware that they could withdraw at any stage without penalty. After obtaining written consent, completion of the questionnaire took place during a predetermined time session following an introduction to the research content and purpose of the questionnaire by the researcher.

Statistical analysis

Two statistical programs – SPSS and AMOS – were employed. Descriptive statistics were used to describe the demographic data. Validity and reliability were tested by means of confirmatory factor analyses and the calculation of Cronbach's alpha values (Clark & Watson, 1995) for all scales. Spearman's coefficient and analysis of variance (ANOVA) were used to analyse relationships between the sub-scales of the WBNSS and the WEIMS, respectively (Field, 2009). To interpret the practical significance of the findings, interpretation guidelines for Cohen's d-values (Ellis & Steyn, 2003; Field, 2009) were followed, that is, $d \approx 0.2$ was regarded as a small effect (no practically significant difference), $d \approx 0.5$ as a medium effect (practically visible difference) and $d \approx 0.8$ as a large effect (practically significant difference).

Results

Descriptive statistics, internal consistencies and correlations

Table 1 depicts the overall mean and standard deviation results per sub-scale for each of the two measurement instruments that were used to obtain an overall indication of the respondents' motivations for being involved in their work as postulated by SDT.

It is evident from the information provided on standard deviations in Table 1 that participants do not seem to differ drastically in their responses on the scales. The WEIMS results as shown in Table 1 implicate amotivation as the lowest ranking dimension with an average score of 3.28, implying the relative absence of motivation. In contrast, intrinsic motivation ranked higher than average. These results indicate that the respondents generally experienced a higher than average degree of intrinsic motivation towards their work. However, when reviewing the stages of the extrinsic motivation demonstrated on the SDT continuum, we find that introjected regulation ranks highest with a mean score of 5.43. This suggests that many employees are still in a process of adopting organisational rules but have not yet incorporated them into a sense of self – employees go along with the task because they believe they should and experience feelings of guilt if they do not.

The overall results for the WBNSS demonstrates that respondents are experiencing neutral feelings as far as the stimulation of intrinsic motivation is concerned. Competence – a belief in one's ability to complete a task – with a mean value of 3.48 ranked the highest but also had the greatest standard deviation value, 1.02. The variation in the respondents' evaluation of the satisfaction of this need shows that although the majority of respondents feel neutral regarding competence, some employees feel less competent than the majority of employees.

Confirmatory factor analyses results supported the six-factor structure of the WEIMS as previously established by Tremblay et al. (2009) as well as the three-factor structure of the WBNSS as previously established by Van den Broeck et al. (2010).

TABLE 1: Descriptive statistics for employee motivation as measured by the Work Extrinsic and Intrinsic Motivation Scale and Work-Related Basic Need Satisfaction Scale.

Dimensions	Mean	Standard deviation
WEIMS		
Intrinsic motivation	5.17	0.15
Integrated regulation	5.07	0.36
Identified regulation	4.97	0.37
Introjected regulation	5.43	0.30
External regulation	4.82	0.40
Amotivation	3.28	0.53
WBNSS		
Autonomy	3.33	0.33
Competence	3.48	1.02
Need for relatedness	2.91	0.70

WEIMS, Work Extrinsic and Intrinsic Motivation Scale; WBNSS, Work-Related Basic Need Satisfaction Scale.

Considering the fact that psychological constructs were being measured and that Cronbach's alpha values for all scales were above or near the minimum required (0.7 as proposed by Field [2009]), the reliability of all the scales was considered acceptable.

Spearman's rho correlations were then analysed to determine whether there was a relationship between the drivers of intrinsic motivation as derived from the WBNSS and the motivation sub-scales as outlined by the WEIMS on the SDT continuum. As expected, the correlation coefficient (r) analyses showed that intrinsic motivation had a medium (positive), practical and visible relationship with the three dimensions of autonomy, competence and relatedness. The results also showed medium, practically visible positive relationships across all three psychological needs for integrated regulation. The relationship observed between the drivers of intrinsically motivated behaviour and integrated regulation align with the literature, which states that integrated regulation is the stage on the SDT continuum that is closest to the fully autonomous intrinsic motivation.

Further examination showed that amotivation was inversely related to all three key psychological motivational needs. More specifically, amotivation had a medium (negative), practical and visible relationship with the psychological needs for autonomy and relatedness. In agreement with the SDT literature, external regulation demonstrated no practically significant relationship with the drivers of intrinsic motivation, as according to the continuum this stage is still predominantly a controlled behaviour.

Basic psychological needs and generational groups

ANOVA tests were used to compare the mean scores of the three generational cohorts in terms of intrinsic motivational drivers as measured by the WBNSS, extrinsic and intrinsic motivation at work and for the consideration of the sub-scales of extrinsic motivation measured in the WEIMS.

Table 2 gives an overview of differences among the cohorts for the entire motivational spectrum including intrinsic motivation, extrinsic motivation and amotivation as measured by the WEIMS. Although small effect size differences were noted for both intrinsic and extrinsic motivation between Generation X and the Millennials, these were neither statistically significant nor would differences be observable between groups in practice.

Table 3 provides the results of each generation's answers for the sub-scales of extrinsic motivation as presented in the WEIMS questionnaire. These four sub-scales represent the internalisation of external regulation. The sub-scales move progressively from controlled (external regulation) to autonomous (integrated regulation) motivation. On average, introjected regulation was ranked the highest, suggesting that respondents take in a regulation but do not fully accept it as their own.

TABLE 2: Descriptive statistics, analysis of variance and effect size results for extrinsic and intrinsic motivation.

Motivational type	N	Mean	SD	Effect sizes		ANOVA	
				Millennials	Generation X	F	Sig.
Intrinsic motivation							
Millennials	36	5.18	1.17	-	-	0.83	0.44
Generation X	94	5.00	1.19	0.25	-	-	-
Baby Boomers	29	5.26	1.23	0.19	0.05	-	-
Extrinsic motivation							
Millennials	36	5.25	1.02	-	-	0.70	0.50
Generation X	94	5.00	1.04	0.24	-	-	-
Baby Boomers	29	5.09	1.13	0.14	0.07	-	-
Amotivation							
Millennials	36	3.17	1.48	-	-	0.21	0.75
Generation X	94	3.26	1.44	0.06	-	-	-
Baby Boomers	29	3.44	1.29	0.18	0.12	-	-

N, number; F, indicates the test statistic of difference and is compared with the critical value of F to determine its significance p; SD, standard deviation; sig., significance; ANOVA, analysis of variance test.

TABLE 3: Descriptive statistics, analyses of variances and effect size results for the sub-scales of extrinsic motivation.

Motivational type	N	Mean	SD	Effect sizes		ANOVA	
				Millennials	Generation X	F	Sig.
Integrated regulation							
Millennials	36	5.18	1.10	-	-	0.65	0.53
Generation X	94	5.00	1.22	0.14	-	-	-
Baby Boomers	29	5.26	1.12	0.07	0.21	-	-
Identified regulation							
Millennials	36	5.21	1.24	-	-	0.96	0.38
Generation X	94	4.86	1.38	0.25	-	-	-
Baby Boomers	29	5.06	1.31	0.11	0.14	-	-
Introjected regulation							
Millennials	36	5.66	1.06	-	-	1.03	0.36
Generation X	94	5.38	1.21	0.23	-	-	-
Baby Boomers	29	5.26	1.39	0.30	0.09	-	-
External regulation							
Millennials	36	4.94	1.27	-	-	0.25	0.78
Generation X	94	4.77	1.27	0.14	-	-	-
Baby Boomers	29	4.78	1.35	0.13	0.00	-	-

N, number; F, indicates the test statistic of difference and is compared with the critical value of F to determine its significance p; SD, standard deviation; sig., significance; ANOVA, analysis of variance test.

TABLE 4: Descriptive statistics and analysis of variance results for basic intrinsic motivational needs.

Dimension	Generation	N	Mean	SD	Effect sizes*		ANOVA	
					Millennials with	Generation X with	F	Sig.
Autonomy	Millennials	36	3.47	0.69	-	-	1.64	0.20
	Generation X	96	3.21	0.70	0.36	-	-	-
	Baby Boomers	29	3.32	0.85	0.18	0.12	-	-
Competence	Millennials	36	4.12	0.95	-	-	0.21	0.81
	Generation X	94	4.11	0.77	0.00	-	-	-
	Baby Boomers	29	4.22	0.68	0.11	0.14	-	-
Need for relatedness	Millennials	36	3.71	0.71	-	-	0.33	0.72
	Generation X	95	3.60	0.73	0.15	-	-	-
	Baby Boomers	29	3.64	0.64	0.10	0.06	-	-

N, number; F, indicates the test statistic of difference and is compared with the critical value of F to determine its significance p; SD, standard deviation; sig., significance; ANOVA, analysis of variance test.

WBNSS results for basic intrinsic motivational needs are displayed in Table 4.

As is evident from Table 4, there was no statistically significant difference in the way the different age groups responded to the relevant questions (all p-values > 0.05) pertaining to the measurement of intrinsic motivational need satisfaction. The largest effect size difference (d = 0.36) was noted for the autonomy need, namely, between Millennials and Generation Xers. The difference highlights that Millennials express a higher satisfaction with the psychological need of autonomy than shown by generation Xers. In other words, Millennials felt that they had a higher sense of autonomy and that they had a choice in matters affecting them. All cohorts ranked the satisfaction of the psychological need for competence the highest, indicating that the respondents considered the ability to complete a task as highly important.

In sum, no statistically significant generational differences based on p-values and no medium or large differences indicated by the effect sizes were observed. Small effect size differences were noted between Millennials and Generation X

on the Identified Regulation scale and between the Millennials and Generation X as well as Baby Boomers on the Introjected Regulation scale; however, none of these are of a practically significant magnitude. From these results, it appears that the generations are motivated similarly by intrinsic and extrinsic motivation. Overall, the Millennials presented higher average scores for both intrinsic and extrinsic motivation and the lowest means value for amotivation.

Discussion

The study tested whether there were generational differences among the workforce of a Rand Water plant in Gauteng in terms of their intrinsic and extrinsic motivation at work.

The proposed theoretical research model considered motivation in terms of autonomous and controlled motivation. For autonomous motivation, the degree of satisfaction of the psychological needs autonomy, competence and need for relatedness was considered. The stages of internalisation of extrinsic motivation were subdivided into autonomous and controlled forms of extrinsic motivation.

Prior to comparing cohorts, the relationship between the drivers of intrinsic motivational psychological needs and the motivation sub-scales on the SDT continuum was verified. As expected, the calculated correlation coefficients showed positive medium, practically visible relationships across all three psychological needs for integrated regulation. In further agreement with the SDT literature, external regulation demonstrated no practically significant relationship with the drivers of intrinsic motivation, as according to the continuum this stage is still predominantly a controlled behaviour.

From the literature, studies on the relationship between work motivation and age groups indicated two distinct strains of thought: firstly there are those who have identified differences and secondly those who believe the differences are negligible. This study found support for the latter of the two trains of thought, in that negligible differences between the groups were identified. In fact, a SDT perspective analyses showed that all three generational groups were motivated similarly by intrinsic and extrinsic motivation and all three groups indicated similar degrees of satisfaction with the three psychological needs related to autonomous, intrinsically motivated behaviour.

When contrasting specific cohorts in terms of their satisfaction of the basic psychological needs (autonomy, competence and relatedness), all groups indicated a strong belief in their ability to complete a task, as seen with the high ranking of the competency dimension. Similarly, all cohorts indicated a strong need for relatedness satisfaction. The only notable difference was found between the Millennials and Generation X respondents in terms of the autonomy dimension. The Millennials indicated a higher sense of autonomy in their work when compared to the responses of the Generation X cohort; however, the effect size indicated that the difference was still not of a practically visible magnitude. It is possible that because Generation Xers expect to be included in all aspects of the business (Ballone, 2007), which may prove difficult for the organisation to facilitate, the respondents may not feel like this need is being optimally fulfilled.

The fact that the generational cohorts experienced similar degrees of satisfaction of the basic intrinsically motivated psychological needs for autonomy, competence and relatedness provides further support for findings by Brislin et al. (2005) and Travis (2007), who found no significant correlation between the variables of age groups and motivation. Findings further suggest that the cohorts are influenced similarly by intrinsic as well as extrinsic motivation. This finding echoes the viewpoint set forward by Giancola (2006), where empirical evidence demonstrated that motivational drivers among generations were very similar. Findings also seem to resonate well with previous research by the Center for Creative Leadership, which found that younger and older generations seem to want similar things from their work and actually share many values in common (Linley et al., 2013).

Overall, the Millennials presented higher average scores for intrinsic and extrinsic motivation and the lowest mean value for amotivation. The aforementioned lends itself in support of the belief that intrinsic and extrinsic motivational rewards do not cancel out each other but work to maintain each other in a synergistic relationship (Khan & Iqbal, 2013). The Millennials indicate on average the highest level of motivation, and the presented results show this is based on a relationship between intrinsic and extrinsic motivations. This conclusion indicates that in order to maintain the current motivation levels among the Millennials, the organisation needs to focus on both intrinsic and extrinsic rewards.

Recommendations for the organisation

Because findings concerning the organisation of interest revealed that younger and older generations actually are influenced similarly by extrinsic and extrinsic motivational drivers, managers are advised to refrain from relying on popular stereotypical ideas of generational differences when devising motivational strategies. According to SDT, motivational organisational contexts are best created by focusing on those psychological needs that form the basis for the direction and resolve for human behaviour – the needs for autonomy, relatedness and competence (Deci & Ryan, 2000) – and satisfaction thereof will enhance both intrinsic motivation as well as the internalisation of extrinsic motivation (Gagné & Deci, 2005). Enduring autonomous motivation can be promoted, for example, by creating psychologically safe and supportive yet challenging contexts that stimulate intrinsic interest, curiosity and creativity; by having meaningful discussions with employees regularly; allowing freedom of choice within a structure of clarified responsibilities; by providing a rationale for tasks and giving sincere feedback in a competent manner that is factual, non-judgmental and free from demeaning criticism (Nel, 2014; Stone, Deci & Ryan 2009).

Because the observed trends in this study were not statistically significant, differences between individuals in terms of what motivates them may actually be of a greater magnitude within the same age group than those perceived between generations and warrants an exploration of the relative strength of specific motivational needs of individuals within a particular job context irrespective of age group. Discussions intended to motivate specific employees should seek to explore opportunities to satisfy intrinsic basic psychological needs according to the relative strength of those needs within the particular individual and as matched to the individual's specific work context. This implies that the organisation will have to invest more into understanding individuals' perspectives. According to Stone, Deci and Ryan (2009), meaningful discussions with employees are characterised by asking open questions, listening attentively, acknowledging employee perspectives and by refraining from pressure, threats and directives to perform.

It should nevertheless be noted that workplaces will continue to become even more multigenerational in the future (Haynes, 2011) and it is likely that stereotypes among age groups themselves will persist and may cause heightened sensitivity to perceived age discrimination (Burke et al., 2015). It is therefore recommended that the organisation should look for ways to foster a generational-friendly environment (Hoole & Bonnema, 2015), such as to increase interaction among employees of different ages through inter-group activities, mentorship programmes and other initiatives. According to Next Step Growth (2013), the top suggestions for bridging generational gaps within the work environment include collaborative work styles and tools, team-building events, the use of the latest technology, leadership coaching and mentorship programmes.

Study limitations and recommendations for future research

The relatively small sample size and the sampling procedure used in the study did not ensure proportionate representation within each cohort and limits generalisations to the larger population. For future studies, the use of a stratified random-sample design may be beneficial in that it could ensure sufficient representation of the different generational groups in the larger selected population.

It is also acknowledged that a cross-sectional study cannot decisively establish whether observations of small differences that have been noted in some instances are a result of generation or age. Although a once-off measurement is useful as a starting point, it is necessary to explore the trends over time through longitudinal follow-up studies.

Another limitation of the study is that it applied age categorisations presented by the literature that tend to be used across the globe, yet this universal typology of generations may prove to be too simplistic. Because Burke et al. (2015, p. 156) emphasised that 'generational attributes by their very nature are specific to the socio-political events

that create and shape these cohorts', more rigorous scientific verification is necessary to determine whether the broad age cut-off points used to differentiate cohorts from each other are indeed justifiable and applicable to the South African context. If potentially more appropriate cut-off points for age could be verified and used in future studies, it may for instance transpire that the current statistically non-significant yet consistent differences observed between Generation Y and both Generation X and the Baby Boomers in terms of the relative strength of their motivational needs may reveal itself more clearly.

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Competing interests

Authors' contributions

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Organisational change and the psychological contract at a pharmaceutical company

Authors:
Kelebogile D. Magano[1]
Adèle Thomas[1] [icon]

Affiliations:
[1]Department of Industrial Psychology and People Management, University of Johannesburg, South Africa

Corresponding author:
Adele Thomas,
adelet@uj.ac.za

Orientation: Over a period of 6 years, a South African pharmaceutical company had been involved in several mergers and acquisitions. These changes had proved difficult for staff and staff attrition had risen.

Research purpose: The objective of the study was to explore the perceptions of senior managers about the impact of change on the psychological contract. The sub-objectives were to determine what organisational factors contribute to changes in the psychological contract during periods of change, and the implications of the breach of the psychological contract for the company and its employees.

Motivation for the study: As the company was set to embark on further mergers and acquisitions, the opinions of senior managers about how such changes should be addressed are important for the company.

Research design, approach and method: A case study approach was used in this qualitative study. The population comprised 60 senior managers of whom 12 were purposefully selected for inclusion in the study. A semistructured interview schedule was used to capture the views of these managers and themes were extracted by means of content analysis.

Main findings: Seven themes emerged which encapsulated the perceptions of senior managers about the impact of change on the psychological contract during periods of mergers and acquisitions – lack of communication, an absence of planning, lack of employee engagement, less than optimal human resources involvement, lack of preparation of the organisational culture and poor change management processes. These factors need to be addressed to strengthen the psychological contract of employees during periods of change.

Practical/managerial implications: The study highlighted areas that leaders and managers of the company should consider when embarking on mergers and acquisitions if the psychological contract of employees is not to be negatively impacted.

Contribution: While caution must be exercised in the generalisation of the findings, companies in the same industry or those in other industries could use the findings as points of departure for considering the elements that should be addressed in change initiatives.

Introduction

Growing competition has created opportunities for companies to increase market share through mergers and acquisitions (M&As). However, many M&As fail to create value for the merged companies (Gomes, Angwin & Yedidia Tarba, 2013) because the complex interdependent sub-activities of due diligence, negotiations, financing, people integration and organisational culture have not been synergised (Wei & Clegg, 2014). When implementing changes such as M&As, leaders tend to focus on business outcomes rather than on the impact the changes will have on individuals within the organisation (Aggarwal-Gupta, Kumar & Upadhyahula, 2012).

The pharmaceutical company, the subject of this case study, was established in 1990 as the only South African vaccines importer. At that point, its core business was to provide effective, safe vaccines to the South African Health Department at competitive prices following cold chain principles. The company engaged in a series of M&As between 2009 and 2015.

In South Africa, the introduction of the *Broad Based Black Economic Empowerment Act* (*BBBEE Act* No. 53 of 2003) saw an increase in M&A transactions within the South African context (Thayser & Dada, 2007). The publication of the *Revised Codes of Good Practice* required companies to review their strategies as the old focus on equity ownership became less important. Because of these

codes, certain aspects of BBBEE, such as black participation in businesses and procurement from black businesses, became increasingly important (Thayser, 2009; Thayser & Dada, 2007). In accordance with the legislative environment, in 2008, the company sold 40% of its shareholding to a 100% black-owned company. This sale saw the organisation becoming the first black economically empowered healthcare company in South Africa as well as the only wholly owned South African vaccines importer and distributor. The shareholding was subsequently increased from 40% to 51%, thereby transforming the company from an empowered company into a black-owned and controlled company.

Prior to the M&As, which impacted approximately 300 employees, no human resources (HR) due diligence was conducted to prepare and mobilise the workforce for the organisational changes. The negative impact of missing this critical step became evident when the best talent began leaving the company with attendant declining motivation and lost productivity.

Purpose

The objective of the study was to explore the perceptions of senior managers about the impact of change on the psychological contract. The sub-objectives were to determine what organisational factors contribute to changes in the psychological contract during periods of change, and the implications of the breach of the psychological contract for the company and its employees.

Literature review

Change management practices during mergers and acquisitions

A merger is the combination of two-share capital, almost equally sized organisations. The two organisations take the best of each to form a new entity, sharing resources and corporate objectives (Filho, 2014). An acquisition occurs when an organisation takes ownership by purchasing majority shares in another organisation (Gomes, Weber, Brown & Tarba, 2011). Although M&As are different legal transactions, they tend to be treated similarly in the literature (Al-Laham, Schweizer & Amburgey, 2010; Bowman & Ambrosinni, 2007). Various steps must be taken to ensure that the merged entities function optimally (Sun, Peng, Ren & Yang, 2012). Such steps include undertaking a due diligence process, involving HR in the management of the process, communicating to employees, developing culture compatibility and ensuring governance around structures and processes.

Due diligence and postmerger integration should be planned simultaneously and managed as ongoing processes during the premerger phase (Weber, 2011). Effective due diligence leads to a purposeful acquisition strategy for the merging companies and thus is an important process (Ceausescu, 2008); inadequate due diligence increases the risk of failure (Sun et al., 2012). The process of due diligence normally involves financial staff and is not extended to other leaders in areas such as HR,

information technology and operations who must work with the new partners (Penava & Šehić, 2014). Similarly, senior executives involved M&As mostly focus on the strategic fit of the merging organisations, not on cultural fit (Bauer & Matzler, 2014), and may not consider the human element in the running of the operations postmerger (Rottig, Reus & Tarba, 2014). However, Nohe and Michaelis (2016) note that, with acquisitions, it is important that the acquiring organisation gains a holistic perspective of the target organisation.

Various factors are important during periods of M&As. Communication is crucial during such processes and the lack of a systematic communication method for liaising with employees can be an impediment to successful postmerger integration (Herold, Fedor, Caldwell & Lui, 2008). Effective communication includes aspects of timing, frequency, honesty and management reliability and approachability (Brakman, Garita, Garresten & Van Marrewijk, 2008). Top executives are critical to the leading of any change process, including setting out the communication agenda (Penava & Šehić, 2014). Senior management must drive the communication strategy with a consistent message, assuring all stakeholders that the process is efficient and effective, and providing reminders about the rationale for the change (Angwin 2004).

The management of HR is a major determinant in the success of the integration postmerger (Alfes, Truss & Gill, 2010). Employees of newly merged companies are likely to be exposed to changes in their psychological contracts that affect their performance and engagement (Coyle-Shapiro & Kessler, 2002; McDermott, Conway, Rousseau & Flood, 2013). The management of HR is important both pre- and postmerger in order to address issues of uncertainty about matters of job security and the future, as talented employees are often lost during periods of change (Creasy & Peck, 2009).

Lack of attention to employees at this time may also result in resistance to change (Penava & Šehić, 2014) which manifests itself through negative attitudes and behaviours towards the acquisition or merger (Choi, 2011). Resistance must be managed because it can influence successful postmerger integration and it affects the inputs and the willingness of employees to participate in the integration process (Kyei-Poku & Miller, 2013).

Organisational culture is 'the deep structure of organisations, entrenched in the values, beliefs and assumptions held by employees' (Stahl & Voight, 2008, p. 163). Organisational cultural misalignment is a major impediment to successful M&As as employees bring to the workplace their own particular ways of operating and their preferences and desires based on the culture of the organisations that have served as a reference point for them. Even in optimal situations, it can take time for employees to assimilate into a single culture (Chatterjee, 2009).

The psychological contract

The psychological contract refers to the exchange agreement between the employee and employer (Rousseau, 1990) and

involves perceived obligations that centre on seeking agreement on employment terms (Vantilborgh et al., 2014). Psychological contracts are not static and are continuously changing as a result of employee experiences during employment (Aggarwai & Bhargava, 2009; Chaundry, Coyle-Shapiro & Wayne, 2011). The psychological contract involves employee belief of what the organisation should offer and what the employee should give in return (Guest, 2016). The psychological contract invokes certainty by creating, in employees, a sense of predictability, job security and control (Sverdrup, 2012).

Breach of the psychological contract involves a perception that the company has reneged on the obligations that it promised to fulfil (Cassar & Buttigieg, 2015; Piccoli & De Witte, 2015). Perceived fulfilment or psychological contractual obligations influence employee attitudes and behaviours such as job satisfaction and perceived job security (Ahmed, D'Netto, Chelliah & Fein, 2016; Payne, Culbertson, Lopez, Boswell & Barger, 2015), organisational citizenship behaviours, turnover intentions and actual turnover (Bauer & Matzler, 2014) and motivation and performance (Weber & Fried, 2011). Maintaining organisational commitment is a challenge during periods of organisational change (Connelly & Gallagher, 2004) as employees tend to maintain their commitment to the old employer rather than committing to a new employer (Kessler, Coyle-Shapiro & Purcell, 1999).

In order to address the research objective of exploring the perceptions of senior managers about the impact of change on the psychological contract, four propositions emanating from the literature review are posited.

Proposition 1: Psychological contract breach can occur during periods of organisational change.

If not handled sensitively, organisational change can break the psychological contract between the employee and employer, resulting in counter-productive behaviours such as the intention to leave, reduced organisational commitment and less job involvement (Wagner & Victoria Garibaldi de Hilal, 2014).

Proposition 2: Performing a due diligence exercise is important prior to the merger or acquisition in order to promote the psychological contract between employer and employee.

M&As generally involve extensive organisational change for the acquiring, the acquired or the merged organisation (Gomes et al., 2013). Marks and Mirvis (2001) indicate that in most M&A activities, HR issues are neglected and HR practitioners do not play a central role in the process. If a merger or acquisition is to be successful, HR needs to be involved actively throughout all the stages of the M&A process (Gomes, Angwin, Peter & Mellahi, 2012; Zhang et al., 2015).

Proposition 3: During periods of strategic change such as M&As, key talent can be lost because of breaches of the psychological contract.

Many acquiring companies lose key employees soon after the deal closes (Steigenberger, 2016) and, if uncertainties exist, key employees look for other alternatives (Pohl, Bertrand & Ergen, 2016).

Proposition 4: The existing organisational cultures of the merging organisations can result in a clash of cultures that impacts the psychological contract between employer and employee.

Culture is critically important to business success (Viegas-Pires, 2013), but changes in organisational culture through M&As can lead to culture clashes and result in employee unhappiness (Marks & Mirvis, 2001).

In summary, Table 1 notes the alignment of the propositions, the literature review and the research objective or sub-objectives.

TABLE 1: Alignment propositions, literature and research objective or sub-objectives.

Proposition	Literature	Link to objective or sub-objectives
Proposition 1		
Psychological contract breach can occur during periods of organisational change	Aggarwai and Bhargava (2009); Chaundry et al. (2011); Conway and Briner (2009); Khalid and Rehman (2011); Rousseau (1990); Sverdrup (2012); Vantilborgh et al. (2014)	To understand how the psychological contract is affected during periods of change
Proposition 2		
Performing a due diligence exercise is important prior to the merger or acquisition in order to promote the psychological contract between employer and employee	Brakman et al. (2008); Ceausescu (2008); Creasy and Peck (2009); Gomes et al. (2013); Marks and Mervis (2001); Stahl and Voight (2008); Sun et al. (2012); Weber (2011); Zhang et al. (2015)	To determine what organisational factors contribute to changes in the psychological contract during periods of change
Proposition 3		
During periods of change such as M&As, organisations can experience loss of key talent	Mergers as instigators of change: Gomes et al. (2011); Sun et al. (2012) Change and change management: Alfes et al. (2010); Angwin (2004); Bauer, Coyle-Shapiro and Kessler (2002); Bauer and Matzler (2014); Brakman et al. (2008); Creasy and Peck (2009); Herold et al. (2008); Khalid and Rehman (2011); McDermott et al. (2013); Rottig et al. (2014) Loss of key talent: Choi (2011); Kyei-Poku and Miller (2013)	To understand the implications of the breach of the psychological contract for the company and its employees
Proposition 4		
The existing organisational cultures of the merging organisations can result in a clash of cultures that impacts the psychological contract between employer and employee	Marks and Mirvis (2001); Viegas-Pires (2013)	Implications of the breach of the psychological contract for employers and employees

Method

Research approach

The choice of a qualitative methodology was motivated by the desire to explore issues surrounding a problem for which greater information is needed (Domegan & Fleming, 2007). Qualitative methodology results in data-rich descriptions that are coherent and can advance understanding of the social phenomenon under investigation (Marshall & Rossman, 2010). Accordingly, the study was positioned within an interpretivist paradigm where reality consists of reported subjective experiences of the external world (Erikson & Kovalainen, 2008).

Research design

A case study design in a single organisation was used to allow for the exploration of the manner in which individuals construct meaning within the real-life context (Yin, 2009).

Population and sample

The population comprised all 60 senior managers in the company. Non-probability, purposive sampling was used that afforded focus on the particular characteristics of a population of interest in order to best allow the research question to be answered (Marshall & Rossman, 2010).

The sample consisted of 12 senior managers who actively participated in the daily supervision, planning and administrative processes of the company. All were located in Band D reporting into Band E of the Paterson Grading system (Paterson, 1972). All were employed at the organisation during 2009 and 2015 when the organisation was undergoing the changes. By the use of such selection criteria, an attempt was made to ensure that those providing information could comment sensibly on the issues under investigation.

The participants included seven males and five females: three were African, one was mixed race, one was Indian and seven were white people. Tenure with the organisation ranged between 5 and 22 years. All participants had undergraduate degrees with some pursuing postgraduate studies.

Interview guide

Based on the literature reviewed, an interview guide with semistructured, open-ended questions were constructed to guide the researchers in the probing of issues. The questions focused on the issues of promises made to employees and change management during the periods of M&As. Examples of questions included: 'What changed in your working conditions when there was a merger or an acquisition?' 'Can you provide an example of a time that a promise made to you was broken by the company?' 'Please describe the changes you experienced'.

Data collection

The semistructured interviews were conducted at the participants' place of work in Gauteng. All interviews were recorded on a digital voice recorder with the permission of the participants. While an interview guide served to guide the interviews and to provide a broad structure in terms of the areas of investigation, participants were encouraged to embellish on the issues and such embellishments allowed for the probing of the issues under consideration.

Data analysis and interpretation

Key themes were identified after a content analysis resulted in a grouping of emerging issues from the data (Leedy & Ormrod, 2005). The propositions were used as a framework for the interpretation of the data.

Validity and reliability of the data

To ensure face validity of the measuring instrument, the questions were piloted with five managers from the finance department under the same conditions as those that prevailed in the main study.

Lincoln and Guba (1985) propose that qualitative studies must be trustworthy by being credible with the research accurately identifying the issues under study. The present study sought to uphold this ideal by three independent researchers separately checking the data emerging from the interviews. Lincoln and Guba (1985) further note that the study must be dependable. This aspect was addressed by the transcription of detailed and accurate content provided by the research participants. Further, the concept of transferability (Lincoln & Guba, 1985) was adhered to in that the study allows for the findings to be applicable in other contexts through the use of 'thick descriptions' (Geertz, 1973) that can be considered in other settings. Finally, the concept of authenticity (Lincoln & Guba, 1985) was addressed by fairly representing the data and by reporting the findings in a manner that allows for a greater understanding of social situations and the perspectives of a variety of people.

Findings

Seven themes, perceived by senior managers as being important for the psychological contract during periods of change, emerged from the data: communication, planning, leadership, employee engagement, the role of the HR department, organisational culture and change management processes. Qualitative comments provided by participants (noted as Participant 1, Participant 2, etc.) are interspersed with the reporting of the findings.

Communication

All participants agreed that communication plays a critical role in change processes such as M&As. Two central issues emerged around the theme of communication: communication relating to the merger or acquisition itself and communication relating to people issues.

All participants highlighted the need for timeous communication concerning any change initiative. Eight

participants agreed that the conclusions of the deals were communicated to employees using verbal and written forms of communication although these sessions were perceived as being reactive on the part of management after rumours of pending deals emerged. Email was the most frequently used communication channel and eight participants indicated that they would have preferred face-to-face and direct communication over written communication. Four participants indicated that they became aware of the deals through the 'grapevine':

> Well, I read the newspapers. I hear mergers here and there, people are angry, people are being retrenched – not that I know the difference between a merger and an acquisition. (Participant 4, white male, acquiring company)

> I think there should have been earlier communication which was honest rather than vague. I mean look at the X deal, no one knew about it. But I think you show respect to people by involving them and I don't think we got that quite right. (Participant 2, African male, acquiring company)

All participants agreed that communication regarding people issues was neglected by management. Eight participants agreed that lack of communication or inadequate communication regarding issues that directly affected people caused apprehension amongst employees and this made further communication efforts difficult. People lost interest in the merger or acquisition and there was a general decline in productivity and staff morale:

> Often there wasn't transparency, so one didn't know … we would hear things in the passage. I think that the biggest problems we had … the lack of transparency, lack of clear communication and, I think, also often dissent in the management circle. Top management couldn't agree and they fought amongst themselves. (Participant 9, white female, acquired company)

Eleven participants felt that they were not given an opportunity to provide feedback to leadership regarding issues of concern:

> A staff survey was made available, which was administered twice but we actually never got feedback. We never got to know what the main issues that emanated from the staff survey were and how they were going to be addressed. So, for me, it didn't work at all. Communication was ineffective because management failed to actually monitor or get the issues resolved. (Participant 5, white male, acquiring company)

> I felt management communicated as one of those 'by the way' things and ticked off the box that it's been done. (Participant 1, African female, acquiring company)

Planning

All participants strongly agreed that planning is critical during periods of change, such as those introduced by M&As, but stated that planning for the M&As was insufficient. Two broad issues emerged in relation to the theme of planning: the absence of a sound due diligence exercise and the absence of setting vision, mission and strategic objectives:

> A proper due diligence should have been conducted by outside consultants to eliminate any biased thinking or overconfidence in the organisation's own abilities. Furthermore, potential liabilities should have been identified and investigated further and not been taken at face value. (Participant 12, Indian male, acquired company)

> I think the biggest thing within all these acquisitions was a lack of a clear strategic direction and leadership. I know for a fact that there has been a downturn in profits and profitability … if you look at the figures, we're going in the wrong direction. (Participant 2, African male, acquiring company)

> The involvement of people is a critical component in the due diligence process, as it is those people who will make the due diligence process work. (Participant 12, Indian male, acquired company)

Seven participants felt that the formation of the new company, with its merged and acquired components, provided the company with an opportunity to formulate a vision, mission and new strategic objectives. However, this did not happen because business units continued to trade as separate entities with one business unit refusing to be part of the integration. Four participants emphasised the importance of setting up a strategic direction for the newly merged entity:

> Well … as you know … I'm on my way out. I'm tired of the politics at play. There's no direction, no clear strategy. (Participant 3, mixed race female, acquired company)

> I think there were too many changes and even at this point, I still don't know where we're going. I don't have a clear understanding of what the strategy is. Because one day we are retrenching people in finance, the next minute we are not; the next minute we are retrenching procurement staff, the next we are not. The next minute business development is here, the next it's in Ireland. So everything's all over the show. Nothing's clear at the moment, so I guess that makes me a little bit nervous. (Participant 7, white female, acquired company)

Almost all participants had changed positions once or twice within the organisation and felt that no senior cohesive team had been developed after the M&As:

> The critical element for success of an M&A is not the potential amount of synergy to be realised by combining companies, but rather the existence of people who can play a critical role in ensuring a successful integration process. (Participant 12, Indian male, acquired company)

> Literally, I've had seven job descriptions over a period of two years. Within the first year of my employment, I had four different bosses. It was quite disruptive. (Participant 7, white female, acquired company)

Three participants indicated that more in-depth technical due diligence should have been conducted because all the business units used different systems and processes. The delays associated with trying to implement a uniform system and implement new policies and processes caused further consternation amongst employees and clients. The biggest problem facing the business units involved incompatibility between the various systems and this resulted in the introduction of a new reporting system:

> Some of the business units did not have formal systems and when the new reporting process system was introduced, chaos

erupted. There were different versions, different interpretations, everyone having different minds about how the system had to be implemented. It was a mess. (Participant 6, African male, acquiring company)

Leadership

All participants felt that leaders have a responsibility to orchestrate the success of organisational change efforts:

> Post-integration - I feel that there hasn't been strong leadership. I don't think it is my perspective alone, but the general perspective of employees … they don't feel that the organisation lived up to its words and there was no action … so there's a very definite change in culture. (Participant 5, white male, acquiring company)

> And I think it's not just an HR department that must do it or should do it… but it must be driven by leadership with the support of HR. (Participant 9, white female, acquired company)

Employee engagement

The findings relating to employee engagement involved two dimensions, namely affective or emotional engagement and behavioural engagement. Nine participants mentioned that they were not engaged in their work and that, although they attended and participated at work, they were merely serving time, putting no passion or energy into their work.

Six participants indicated that the M&A changes were threatening for employees and produced anxiety and stress. Five participants highlighted the common stressors as being: level of uncertainty, fears concerning job loss, job changes and changes in compensation and status. Participants believed that these stressors led to a high turnover rate, decreased productivity, low staff morale, low job satisfaction and a lack of identification with the newly constituted organisation:

> After the mergers and acquisitions, the anxiety grew especially as the processes unfolded and the organisation started getting big. The realities of the mergers were realised when the organisation started retrenching staff … People became disengaged, morale was affected. However … they always pulled themselves back. But just as they were about to stabilise, another acquisition happened, then the whole process of disengagement, low morale, psychological distance would happen again to a point where it became cyclical. At the present moment, based on the conversations I've had with some of my colleagues … people's security is threatened, people fear that they'll become obsolete as they fear that their skills and expertise will lose value in the new organisation. Generally … people are not in a good space. You can just see; they do what is required. That sense of going an extra mile is gone … (Participant 3, mixed race female, acquired company)

Participants reported an absence of support structures to assist employees with stress coping strategies:

> I was told to call our employee assistance programme … that we have it as an option should we need counselling etc. But I don't know … empathy would have been … well … better received. (Participant 5, white male, acquiring company)

All participants felt that promises of support, participation in a long-term incentive scheme, salary adjustments, higher prestigious positions and opportunities for training and development were not kept. This affected the commitment of employees and their general outlook regarding the organisation:

> I mean forget about position and income and bonus and other things. Those were there or here. Decisions were reversed. (Participant 2, African male, acquiring company)

The role of the human resources department

Ten participants noted that the role played by the HR department during the M&A integration processes could have been more strategic in assisting management to develop a people management strategy. In fact, it was noted that HR was not included in the due diligence process:

> Issues like remuneration … nothing was done about remuneration. The different remuneration structures were an issue as people started comparing themselves to their peers because the salaries and benefits were different. The general feeling was that we're not being taken care of. (Participant 8, white male, acquired company)

> To be honest … HR tried to implement standard policies and practices but there was so much resistance from certain senior managers who did not want changes. There were some battles won but I think the process would have been much better if HR had support from management. And when I say support, I mean support, not half hearted support. (Participant 1, African female, acquiring company)

Organisational culture

All participants agreed that the organisation had not established the type of culture they desired following the M&As. They also indicated that no proper cultural assessment had been conducted prior to these changes being implemented:

> My perception is that we haven't really developed a proper culture. And the danger now with the latest acquisition is that we're back to square one. We're now being forced to be part of a bigger group. The whole feel needs to change. So whatever we have built with the company until now will again be sucked up into somebody else's culture which is difficult because now you have an overseas multinational mother company that you have to look at. It's a rough road. I don't know why I'm still here! (Participant 8, white male, acquired company)

All participants felt that culture should be an important consideration during periods of growth created by M&As. In addition, they felt that if the cultures of the acquiring and acquired companies were vastly different, it would prove difficult to integrate the organisation:

> The cultures differ immensely. I mean we are trying to combine 13 different cultures. It was bound to be difficult to establish synergy, more especially if the leaders themselves don't know what kind of culture they would like to see define the company brand. (Participant 11, white male, acquired company)

Change management processes

Participants did not understand the different change processes, and were particularly confused about whether the change process was a merger or an acquisition; they used the terms interchangeably:

> Well it was a strange thing because it was a reverse acquisition, remember? X actually bought Y … but then Y, being the bigger company, took over the acquisition, so we were part of the acquiring company in a way … it was a very strange deal. (Participant 6, African male, acquiring company)

Ten participants felt that the M&As were discussed between top management of the acquiring and acquired companies and that other stakeholders were not involved:

> But it was mostly X and Y and the Board and whoever did all of that. They ran with everything from start to finish. (Participant 6, African male, acquiring company)

> The stakeholders were always only the senior management of the acquiring company, and the acquired company. (Participant 3, mixed race female, acquired company)

All participants agreed that managing change is important when promoting integration of different organisational cultures:

> Change management is important. It's critical. I think if you don't have buy in from your staff and they don't feel part of the process, you're lost. You're already dead; you're doomed to fail. Aren't your people your resource? (Participant 7, white female, acquired company)

> Change management is critical. For me, employees are what make the organisation. If they are disengaged, unhappy, fearful, constantly questioning their security, they tend to lose focus of what the organisation is trying to achieve. Therefore, engage with them, talk to them, invite them to give feedback and suggestions. (Participant 5, white male, acquiring company)

All participants believed that a detailed change management plan should have addressed communication to create awareness about the changes and how they affect employees to avoid information being acquired through the corporate grapevine:

> As management, have a plan and decide on the culture that defines the company. The culture should be something that will drive the business and its processes. Implementation should be immediate with milestones of what needs to be achieved and when. Also, get constant feedback from employees and allow employees to give inputs. Address their concerns. (Participant 5, white male, acquiring company)

Ethical considerations

In seeking informed consent for the study, the selection process was explained to the participants and the potential benefits of participation were described. This information was included in the written consent agreement which was signed by all participants.

To maintain confidentiality, participants' names were not recorded (Domegan & Fleming, 2007), and all identifying information was excluded in the reporting of the findings (Leedy & Ormrod, 2005).

Discussion
Outline of the findings

The objective of the study was to explore the perceptions of senior managers about the impact on the psychological contract during periods of change. The sub-objectives were to determine what organisational factors contribute to changes in the psychological contract during periods of change, and the implications of the breach of the psychological contract for the company and its employees. Four propositions were posited and form the framework within which the seven main clusters of findings that address these objectives are discussed.

Proposition 1: Psychological contract breach can occur during periods of organisational change

This proposition is supported by the themes that were identified by senior managers – organisational culture, employee engagement and communication.

The findings indicate that organisational change contributed to the breakdown of the exchange relationship between the employer and employees, the heart of the psychological contract (Aggarwal-Gupta et al., 2012). From comments relating to the seven themes that emerged, employees appeared to have withdrawn from the organisation. During periods of change, employees may find it difficult to identify with the newly constituted organisation which can lead to lower job satisfaction and turnover intentions (Payne et al., 2015).

Communication, a critical component of any change process (Khalid & Rehman, 2011), was lacking, as indicated by the numerous suggestions for increased levels of communication. In the absence of such communication, participants expressed feelings of apprehension, and noted the loss of productivity, the high employee turnover and poor morale in the company, factors which were also found by Conway and Coyle-Shapiro (2012) to be consequences of changes in the psychological contract. Similarly, Bauer and Matzler (2014) report that during periods of change, lack of communication, involvement and support have a negative impact on the psychological contract. The need for clarity about plans, structure and personnel issues, together with honesty and openness, are key ingredients of any effective communication system (Brakman et al., 2008).

Further, the negative impact of change on the psychological contract can be extrapolated from the expressions of potential loss of organisational citizenship behaviours such as loyalty and trust in the organisation, perceptions of organisational unjust practices such as unfairness of the downsizing or retrenchment processes and confusion over roles and expectations. In line with the breach in psychological contract, it appears that participants felt that there were few prospects for growth because of the broken promises they experienced.

These findings echo the argument of Chaundry et al. (2011) who suggest that organisational change results in a revision in the relational psychological contract.

Proposition 2: Performing a due diligence exercise is important prior to the merger or acquisition in order to promote the psychological contract between employer and employee

The findings support this proposition. The themes identified by senior managers in this regard include those of the involvement of the HR department and the change management processes.

M&As are becoming increasingly complex and it is thus important that an appropriate due diligence exercise is performed to mitigate the difficulty and risk associated with these deals (Ceausescu, 2008). Despite due diligence being an important aspect of M&As (Gomes et al., 2012), very little implementation planning was conducted at the company, and HR appeared to have been excluded from the process. Participants perceived that the due diligence process, including the people aspects of due diligence, had been overlooked. Linked to due diligence, it appears that leaders of the company did not strategise for employee engagement and that the change management process was unclear and excluded the involvement of staff. For M&As to be successful, and for the psychological contract to be preserved during such change processes, HR practitioners need to play an integral role in the process (Zhang et al., 2015).

Proposition 3: During periods of strategic change such as mergers and acquisitions, key talent can be lost because of breaches of the psychological contract

The findings support this proposition. The themes that emerged from senior managers to support this proposition included employee engagement, communication and change management processes.

Several participants alluded to the unhappiness of staff in the organisation with references to departure intentions. The frequency of the changes also led to increased levels of job insecurity, and an absence of strategic planning and inadequate communication led participants to feel uneasy about their futures and career paths. Participants noted that the HR department did not play a critical role in the integration process which resulted in people-related activities being neglected. They felt that the HR staff should have formulated a transitional plan during the due diligence process so that all people-related issues could be addressed (Zhang et al., 2015) such as the retention of staff (Steigenberger, 2016).

Proposition 4: Existing organisational cultures of the merging organisations can result in a clash of cultures that impacts the psychological contract between employee and employer

The findings support this proposition. The themes emerged from senior managers related to organisational culture, leadership, planning and the involvement of the HR department.

Participants perceived that culture was ignored during the M&As and noted that the resultant organisational culture was undesirable with a lack of integration of the different cultures of the acquired companies. According to Simpson (2000), the continuous identification and capturing of value happens during the integration period, and success in the area requires the involvement of senior management. An effective top management team has the ability to defuse postacquisition conflict, as well as better coordinate business unit integration during periods of change (Bouckenooghe, 2012).

Participants perceived that the leadership of the company had not established the kind of culture that would drive the business and that there were cultural mismatches that made it difficult to establish synergies. This demonstrated poor integration planning because cultural alignment should begin during the M&A processes (Rottig et al., 2014) and be instilled throughout the change process (Bauer & Matzler, 2014; Viegas-Pires, 2013). In addition, participants noted that, as HR was not involved in the integration planning, culture integration was overlooked. The most important contribution by HR during M&As is to determine if the cultures of the merging companies are compatible (Zhang et al., 2015).

Practical implications

Seven themes emerged which encapsulated the perceptions of senior managers about the impact of change on the psychological contract during periods of M&As – lack of communication, the absence of planning, lack of employee engagement, less than optimal HR involvement, lack of preparation of the organisational culture and poor change management processes. These factors need to be addressed to strengthen the psychological contract of employees during periods of change. As a result of these factors not being addressed, the psychological contract between employees and the company was negatively impacted, with dissatisfaction being manifested along with signs of intention to leave the company.

The study provides practical pointers for the company to consider in relation to the importance of the psychological contract during M&As. Conway and Briner (2009) note that useful guidance for managers is often overlooked in studies that focus on psychological contract breach. The present study provides awareness of the need to manage the psychological contract as an integral component of the change process during M&As.

The psychological contract is a crucial element in understanding employee work behaviours and a variety of work outcomes (Coyle-Shapiro & Kessler, 2002). The success or failure of integration depends on how organisations manage the psychological contract during periods of change. Understanding employee expectations relating to the employer–employee contract will enhance the understanding of the factors that employees regard as crucial and shape the psychological contract (Aggarwai & Bhargava, 2009). Leaders

should understand that change is dynamic, and thus, also affects the psychological contract. Therefore, initiatives supporting change management should not focus exclusively on tangible issues, but should also address people issues.

It is recommended that the leaders of the company develop a clear integration plan should any further restructuring occur. In this regard, managers need to be in continuous dialogue with employees in order to inform them about the organisational goals and plans. This enables managers to obtain feedback from employees about their personal needs and preferences. Better communication between parties encourages the development of clearer expectations by all about the psychological contract.

HR practitioners should play a role at every stage of the merger or acquisition process. It is important for the company to equip its HR department with better knowledge and skills to cope with the new realities. This implies that HR practitioners should have business acumen relating to issues such as industry trends, governmental policies, finance, legal systems, social and development changes that have a direct bearing on the company's objectives, performance and its people.

After the integration process, company leaders should ensure that employees have clear guidance on their roles within the new organisation, as well as growth plans that assist them in adjusting to ensuing changes. Cognisance should be taken of the differences that exist between individuals and where possible, their remuneration structures, career aspirations and development plans should be structured equitably.

A culture audit, during the pre-integration stage, should be conducted to determine what kinds of norms are important to the functioning of an organisation. Cultural audits are not watertight, but such audits may assist leaders in understanding pressure points at which culture might be influenced.

A process of continuous communication should be adopted to ensure that employees understand the rationale for the change and its overall contribution to the business objectives. The communication needs to begin during the premerger stages to set the scene to promote the commitment of staff to the organisation (Herold et al., 2008).

Limitations and recommendations

The tacit nature of the psychological contract is subjective. Accordingly, the change experienced and its impact on the psychological contract of participants cannot be generalised to represent the experience of all employees in the company. However, in keeping with this methodology, rich insights were gained and can be used to further the research agenda in this field.

While participants were assured of confidentiality of responses, they, nevertheless, may have provided 'socially acceptable' responses. However, from the tone of the qualitative narrative, it appears that participants felt free to express their views. Again, inherent in the analysis of qualitative data is the possibility of bias in the interpretation of data.

Future research could focus how leaders can protect and strengthen the psychological contract during periods of mergers or acquisitions. Based on the key issues that emerged in this study, a model process could be devised with key action steps at all points in the change process. It is suggested that this model is then validated within the company.

Conclusion

The objective of the study was to explore the perceptions of senior managers about the impact of change on the psychological contract. From the factors identified, it is indicated that leaders of organisations need to pay particular attention, during the change process involving M&As, to communication, planning, employee engagement, the involvement of HR in the process, the preparation of the organisational culture, change management processes and leadership.

The organisational environment is continuously changing and organisational leaders need to be aware of the employment relationships in various situational circumstances. Safeguarding the psychological contract is paramount if good staff are to be retained and a positive organisational culture established within which staff can flourish during periods of change and thereafter.

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Investigating the validity of the Human Resource Practices Scale in South Africa: Measurement invariance across gender

Authors:
Renier Steyn[1]
Gideon de Bruin[1]

Affiliations:
[1]Department of Industrial Psychology and People Management, University of Johannesburg, South Africa

Corresponding author:
Renier Steyn,
steynr@unisa.ac.za

Orientation: The effective delivery of human resource management (HRM) services is often associated with positive organisational outcomes, including innovation. Within the context of HRM service delivery, as well as within the scope of innovative behaviour, gender differences are often researched.

Research purpose: To effectively research the role of HRM services in organisations, including the effects thereof on innovation, instruments that yield valid and invariant measures for men and women are required.

Motivation for the study: To date no measurement invariance research on the Human Resource Practices Scale (HRPS), with reference to gender, could be located. Researchers and practitioners alike should be hesitant to use the HRPS without such information.

Research approach/design and method: A cross-sectional quantitative survey design was used. The present study addressed the measurement invariance for the HRPS across men and women, applying pairwise multigroup confirmatory factor analyses with robust maximum likelihood estimation to examine four levels of measurement invariance across the groups. Data from 2936 employees, representing 52 South African organisations, were used.

Main findings: Results support the construct validity of the HRPS and demonstrate strict measurement invariance for the HRPS across gender, which implies that the HRPS yields scores with equivalent meaning, measurement units and measurement precision for men and women.

Practical/managerial implications: It will therefore be possible to test hypotheses regarding mean differences between men and women as well the relationship between the effective delivery of HRM services and positive organisational outcomes without fear that the HRPS will yield gender-biased results.

Contribution/value-add: The research demonstrates that the items of the HRPS are valid for both men and women, suggesting that men and women have similar experience of the workplace. This finding should advance debate and research regarding the segregated delivery of HRM services and gender matters in general.

Introduction

Gender (used in this text to refer to men and women) is a prominent variable within the workplace and life in general. Several journals are dedicated to the topic (see *Gender, Work, and Organisations* [Wiley], *Gender in Management: An International Journal* [Emerald Publishing], as well as the *International Journal of Gender and Entrepreneurship* [Emerald Insight]). In some articles published in these journals the perceptions of men and women are compared, or measures of perceptions are used in models to test hypotheses related to gender differences (Eagly, 1997; Eagly & Wood, 1999), often reporting differential outcomes based on gender.

At a societal level, the *Constitution of the Republic of South Africa* (*Act 106 of 1996*), and particularly the Bill of Rights, and at a workplace level, the *Employment Equity Act* (*Act 55 of 1998*), promote equity, equal opportunity and fair treatment, specifically including gender as a source of unfair discrimination. Though constituted, gender bias remains a source of tension at many work sites (Koch, D'Mello, & Sackett, 2015) and it is often suggested that discrimination is directed against women (Eagly & Karau, 2002; Ismail & Nakkache, 2015). According to Stamarski and Son Hing (2015), discrimination transpires in organisational structures and processes, which in turn affects

human resource management (HRM) practices. HRM practices are those practices traditionally associated with HRM functions, ranging from job design to service termination (Albrecht, Bakker, Gruman, Macey, & Saks, 2015). Within this context, some authors report that gender discrimination exists widely, regardless of gender equality policies (Patterson, Bae, & Lim, 2013). The persistence of gender inequality makes it therefore important to see gender inequality in organisations as a complex phenomenon (Stamarski & Son Hing, 2015) – one that requires sophisticated models if it is to be explained (Lips, 2013). Lee Cooke and Xiao (2014) also express their concern and state that observed gender differences have serious repercussions for HRM practices, affecting job design, work organisation, career support, as well as work–life balance enterprises.

Despite the aforementioned concerns, Dickens (1998) states that most writing and research on HRM does not make gender noticeable (except when the primary submission concerns women at work or equal opportunities) and that writing and research on the nature and perceptions regarding HRM practices tend to be gender-blind. In such writings employees are usually presented as disembodied. As Acker (1992, p. 259) notes, the 'fiction of the universal worker obscures the gendered effects of ostensibly gender-neutral processes and helps banish gender from theorising about the fundamental character of complex organisations'. Dickens (1998) concludes that assuming equality across genders in the HRM domain forms part of grandiloquence rather than the reality and states that apparently gender-neutral HRM concepts and policies are in reality gendered and perpetuate, rather than contest, gender inequality.

Focusing on human capital models, Lips (2013) states that there is a continuing debate in which various explanatory variables are used to explain the gender differences in workplace outcomes, arguing that many of the differences are the result not of discrimination but of other factors such as the different contributions men and women make in the workplace. Most significant for this research is Lips's (2013) questioning of the utility or validity of many of the human capital 'explanatory' variables, stating that they (the explanatory variables) beg explanation themselves.

Purpose

This research aims to analyse the validity of a measurement of HRM practices across men and women, testing if respondents interpret the measure in a conceptually similar manner. Stated more operationally, the research aims to test whether the relationships between manifest indicator variables (scale items, subscales) and the underlying construct are the same across groups (Bialosiewicz, Murphy, & Berry, 2013). The focus on measurement is important, as the *Employment Equity Act* (*Act 55 of 1998*) prohibits the use of instruments that have not been scientifically tested to demonstrate that they can be applied fairly to all employees and are not biased to any group. The focus on HRM practices

is also important, as it is a major antecedent of organisational culture and knowledge management practices, leading to organisational innovation that is positively related to organisational performance (Al-bahussin & El-Garaihy, 2013). Furthermore, this research has been prompted by the work of Ismail and Nakkache (2015), who explored gender differences in the experiences of HRM policies and whose results disaffirm the stereotypical pro-men conceptualisations.

Literature review

Two matters are reviewed. Firstly, the contention that HRM practices constitute an antecedent to organisational outcomes is considered, and secondly the focus will be on ways in which HRM practices are measured. This review grounds the present research within the context of the present body of knowledge.

HRM practices can positively influence employees' attitudes and lift workplace performance, which will most likely affect organisational outcomes (Kehoe & Wright, 2013; Messersmith, Patel, Lepak, & Williams, 2011). Research has highlighted the role of effective HRM practices in organisational effectiveness (Combs, Liu, Hall, & Ketchen, 2006; Melton & Meier, 2017; van Esch, Wei, & Chiang, 2016). Brewster, Gooderham and Mayrhofer (2016) state that the bulk of HRM research focuses on strategic HRM, implying an emphasis on the impact of HRM on organisational performance. It is therefore not surprising that the Chartered Institute of Personnel and Development (2016) encourages debate on how HRM can amplify its contribution toward organisational performance or that Ulrich (2013, p. 16) urges executives to 'see their human resource practices as a source of competitive advantage' and a deliverer of results.

The outcomes associated with effective HRM practices are not limited to organisational performance as a singular concept. Links have also been found with flow (Kasa & Hassan, 2013), employee engagement (Albrecht et al., 2015), employee satisfaction (Prayogo, Pranoto, & Purba, 2017), organisational commitment (Chambel, Castanheira, & Sobral, 2016) and retention (Denkins, 2013), to mention only a few. Increasingly, researchers have focused on the vital association between HRM and corporate entrepreneurship (Dabic, Ortiz-De-Urbina-Criado, & Romero-Martínez 2011; Schmelter, Mauer, Börsch, & Brettel, 2010; Zhang & Jia, 2010). The HRM–corporate entrepreneurship link has been established using both qualitative methodologies (Amberg & McGaughey, 2016; Denkins, 2013; Llego, 2015) and quantitative methodologies (Ahmed, 2016; Boadau & Gil-Ripoll, 2009; Mustafa, Richards, & Ramos, 2013).

When considering quantitative methodologies, the measurement of constructs is important. Focusing specifically on the measurement of high-performance or effective HRM practices, some authors develop their own measures (e.g. Madmoli, 2016; Zhang & Jia, 2010; Ziyae, 2016) while others prefer to use standardised measures, such as the one developed by Sun, Aryee and Law (2007; e.g. Ahmed, 2016;

Mustafa, Lundmark, & Ramos, 2016; Zhu, Warner, & Rowley, 2007) or Gould-Williams and Davies (2005; e.g. Alfes, Shantz, & Truss, 2012; Boekhorst, Singh, & Frawley, 2015; Jensen, Patel, & Messersmith, 2011). In this research, the focus will be on the Human Resource Practices Scale (HRPS) (Nyawose, 2009; Steyn, 2012), a measure of effective HRM practices previously successfully used in the South African workplace, displaying acceptable reliability and validity properties (Steyn, Bezuidenhout, & Grobler, 2017; Steyn & Grobler, 2014).

Some researchers prefer to present measurement of high-performance or effective HRM practices as a single construct (e.g. Makongoso, Gichira, & Orwa, 2015; Tang, Wei, Snape, & Ng, 2015; Zhang & Jia, 2010), and this is how Becker, Huselid and Becker (1998) present it in their seminal paper. Others, however, perceive it as a multidimensional construct. In this regard, Sun et al. (2007) list broad job design, selective staffing, internal mobility, employment security, extensive training, results-oriented appraisal and rewards, as well as employee participation, as elements of the construct. Boadau and Gil-Ripoll's (2009) instrument assesses elements named *values and culture*, *job*, *internal communication*, *training*, *appraisal of diligence and performance*, *recruitment and selection*, *pay*, *induction and exit processes*, *workforce planning*, *climate and motivation*, *teamwork*, *change*, *leadership*, *industrial relations* and *career plan*. As a last example, Madmoli (2016) lists the following as elements to be assessed when one is interested in effective HRM: *selection*, *training*, *job evaluation*, *rewarding*, *employees' participation in current affairs*, *hiring competent experts*, as well as *the tendency of managers to share implicit and explicit knowledge among themselves*. The HRPS (Nyawose, 2009; Steyn, 2012) (the instrument used in this research) assesses seven HRM practices, namely *training and development*, *compensation and rewards*, *performance management*, *supervisor support*, *staffing*, *diversity management,* as well as *internal communication*.

It may be important to note that the evaluation of HRM practices depends on the degree to which employees experience HRM practices as effective (Kehoe & Wright, 2013). Building on this, and seeing the matter in the context created in the second and third paragraphs of this literature review, this research aims to analyse the extent to which men and women perceive concepts, as presented in the HRPS instrument (Nyawose, 2009; Steyn, 2012), equivalently. The focus on measurement invariance stems from the comparisons often drawn between men and women, something that also happens in entrepreneurship research (Haus, Steinmetz, Isidor, & Kabst, 2013; Henry, Foss, & Ahl, 2016; Lim & Envick, 2013) and when researching the HRM practices that act as antecedents to entrepreneurship (Amberg & McGaughey, 2016; Dabic et al., 2011; Mustafa et al., 2013). To the present no research on the invariance across gender of the HRPS has been published, and this matter is thus unresolved.

This research did not attempt to explain differences between men and women through identifying the most potent explanatory variables. Rather, it focused on the validity of the explanatory variables themselves, as Lips (2013) urges researchers to do. When asking questions regarding invariance, it takes into account whether differences in scores are real and whether the functioning of the measuring instruments is indeed equivalent for men and women. In some cases, instruments have indeed been found to function differently for males and females (Pässler, Beinicke, & Hell, 2014; Wetzel, Böhnke, Carstensen, Ziegler, & Ostendorf, 2013), while in other cases no such differentiation was noted (Baker, Caison, & Meade, 2007; Wei, Chesnut, Barnard-Brak, Stevens, & Olivárez Jr, 2014). Within the context of HRM practices, some research has been conducted regarding the differential functioning of measures of individual HR practices across men and women (Matthews & Ritter, 2016; Ployhart & Holtz, 2008; Xu, Wubbena, & Stewart, 2016), but no research could be located on measurement invariance in HRM practices scales that focus on multiple practices, nor on the HRPS. Ignoring the possibility of deferential functioning has the potential to compromise any substantive gender-based comparisons resulting from the measurement (Salzberger, Newton, & Ewing, 2014). More so, the National Institute of Education and American Psychological Association Standards lists differential validity and differential prediction as a major concern of test fairness (Pässler et al., 2014). Only once construct comparability (measurement invariance) is demonstrated does it become possible to interpret differences in test or scale scores as true representations of differences explained by group membership (Wu, Li, & Zumbo, 2007). The aforementioned is in line with the requirements of the *South African Employment Equity Act* (*Act 55 of 1998*), which takes a strong stance against the adverse impact of psychometric testing.

Research design

This study examines the HRPS structure across 1652 men and 1284 women employees of 52 companies in South Africa. Full data were available across all of the companies concerned. All applicants completed the HRPS in English (which is the lingua franca of high school and post-school education, as well as of business, in South Africa). The objectives of the study were (1) to examine if the HRPS structure could be replicated across gender groups, (2) to examine the level of measurement invariance attained across the groups and (3) to report on the psychometric properties of the HRPS when used in South African organisations.

The matter of measurement invariance is central to this research and to this article. Measurement invariance relates to an observed score being reflective of an individual's standing on a construct, independent of his or her group membership (Mellenbergh, 1989; Meredith, 1993; Meredith & Millsap, 1992; Wu et al., 2007). Within the context of factor analysis, measurement invariance means that the same latent variables are measured across groups, allowing for cross-group factor scores to be comparable (Meredith, 1993; Wu et al., 2007). Typically four levels of measurement invariance are tested: (1) configural invariance, which tests if groups

(men and women) have similar factor loading patterns; (2) weak invariance, testing for equality in unstandardised factor loadings; (3) strong invariance, testing for equal unstandardised factor loadings *and* intercepts (of the item regressions); and (4) strict invariance, testing for equal unstandardised factor loadings, intercepts *and* error variances (Vandenberg & Lance, 2000). As a final step, equivalence of the latent means of men and women on the seven factors was tested. Multigroup confirmatory factor analysis is the de facto standard (Chen, 2008) for use in investigating measurement invariance.

Method

Population and sampling

The target population consisted of employees, at different levels of responsibility, who are exposed to various HRM practices. Organisations with more than 50 employees were targeted as it was presumed that the HRM services would be formalised in these organisations and that a broad range of services would be available.

Measurement instrument

The HRPS (Nyawose, 2009; Steyn, 2012) was used to measure employees' satisfaction with the HRM services delivered to them. The items were developed on a rational basis by examining the literature on HRM (Nyawose, 2009). Seven HRM practices were measured in this study, and the questionnaire consisted of 21 items. The HRPS has a hierarchical structure, with each of the seven factors consisting of three items (see Appendix 1).

Participants responded to the items on a five-point Likert scale, ranging from 'disagree strongly' (1) to 'agree strongly' (5). For each of the seven HRM practices, the scores ranged from 3 to 15. A high score would be reflective of an individual who perceived the HRM practice as effective, whereas a low score would reflect that the participant was dissatisfied with the particular HRM practice. Nyawose (2009) reported internal consistency reliabilities varying from 0.74 to 0.93. Nyawose also reported statistically significant correlations with outcomes such as turnover intentions and occupational commitment. Steyn (2012), only using five of the HRPS scales, reported Cronbach's alphas of 0.88 for training and development, 0.87 for compensation and rewards, 0.81 for performance management, 0.74 for staffing and 0.75 for diversity management. Steyn (2012) also reported significant correlations with turnover intentions and occupational commitment, and additionally with job satisfaction and employee engagement. Overall, these results support the reliability and validity of the HRPS for research use.

Participants

The participants were 2936 employees (44.7% women), representing several public and private organisations based in South Africa. The distribution of participants with respect to race and ethnicity was approximately as follows: 8% Asian, 58% black people, 8% mixed ethnicity and 24% white people. The participants' ages ranged between 20 and 72 years, with a mean of 37.8 years and with a standard deviation of 9.1. Participants' tenure at their present companies ranged from 1 month to 42 years, with an average of just more than 9 years and a standard deviation of 7.5 years.

Analysis

The data were initially scanned for normality, after which measurement invariance was tested for. Following the recommendations of Vandenberg and Lance (2000), pairwise multigroup confirmatory factor analyses (Wu et al., 2007) with robust maximum likelihood estimation were used to examine configural, weak, strong and strict invariance across men and women, and as a final step equivalence of the latent means of men and women on the seven factors was tested.

The analysis only focused on measurement differences between self-identified men and women. This divide (mainly) represents the biological sex and more traditional gender role identification prevalent in the South African society. It is acknowledged that in the present era gender identification is more fluid and that identification as a lesbian, gay, bisexual or transgender (LGBT) individual may have more negative consequences (Badgett, Lau, Sears, & Ho, 2007; Grant, Mottet, Tanis, Harrison, Herman, & Keisling, 2011) than being labelled as a man or a woman. Granting this, the present custom in South Africa is to identify as a man or a woman in most formal organisational settings, and this custom was therefore followed in this study.

The analyses were performed with the lavaan package (Rosseel, 2012) in R (R Core Team, 2013). Maximum likelihood chi-square ($ML\chi^2$), comparative fit index (CFI), root-mean-square error of approximation (RMSEA) and Bayesian information criterion (BIC) were used to evaluate model fit across successively stringent levels of measurement invariance. Findings are as follow:

- Although highly desirable, it was expected that the hypotheses of perfect fit for the measurement models would be rejected, given that the χ^2 statistic is very sensitive to sample size (in this case more than 3000) and is no longer relied upon as a basis for acceptance or rejection of a model fit (Schermelleh-Engel, Moosbrugger, & Müller, 2003; Vandenberg 2006). However, a statistically significant difference in χ^2 between a less constrained and a more constrained model was deemed as evident of a deteriorating model fit.

- A CFI > 0.95 is used as indicative of a good model fit (Vandenberg & Lance, 2000). When comparing models, Vandenberg and Lance (2000, p. 46) note that 'changes in CFI of -0.01 or less indicate that the invariance hypothesis should not be rejected, but when the differences lie between -0.01 and -0.02, the researcher should be suspicious that differences exist. Definite differences between models exist when the change in CFI is greater than -0.02'.

- Vandenberg and Lance (2000) suggest that a RMSEA < 0.08 is acceptable. RMSEA < 0.08 was used as indicative of overall fit. As no critical values for the change of RMSEA could be located, the same principles as for ΔCFI were followed, where consecutive model fits were compared.
- The BIC was used as a measure of comparative fit. Models that generate lower BIC values are generally preferred, and the absolute value was not interpreted. BIC was therefore used to assess model deterioration, which was visible when BIC values increase.

These parameters were used when interpreting the measurement invariance results. Once measurement invariance is established, more descriptive statistics on the HRPS will be provided. These will include the factor loadings, descriptive statistics, including reliability information, as well as the correlations between the observed scores as well as the latent factors. Last-mentioned will provide insight into the uni- or multidimensionality of the measurement of HRM practices.

Ethical consideration

Permission (2014_SBL_018_CA dated 27 February 2014) to conduct the research was obtained from the Research Ethics Review Committee of the Graduate School of Business Leadership at the University of South Africa before commencing with sampling. Once approval had been obtained, a list of staff members was requested from the organisation's HRM department. Respondents were selected randomly from this list. The selected respondents were invited to a meeting at which the purpose of the research was explained. They were informed as to the nature of their participation, including that participation was completely voluntary. Those who agreed to participate then completed a consent form specifying ethical issues, including confirmation regarding the anonymity of participation, confidentiality, the right to withdraw from participation at any time without any explanation or any adverse effects, and the fact that the data would be used for research purposes only. Then only did they complete a hard copy of the questionnaire.

Results

Preliminary analysis showed that the skewness and kurtosis of the HRPS items ranged from -0.08 to -0.97 and -0.99 to 0.79, respectively. None of the items demonstrated excessive deviation from normality and they appeared appropriate for factor analysis with robust maximum likelihood estimation (cf. Loehlin & Beaujean, 2017; McDonald & Ho, 2002).

In each group, a baseline independent cluster confirmatory factor analysis model was specified in accordance with the structure given in Appendix 1. The baseline models were identified by fixing the unstandardised factor loading of one item per targeted factor to unity. Factor loadings of items on non-target factors were fixed at zero. Factor loadings of the remaining items, factor covariances and error variances were freely estimated using robust maximum likelihood. $ML\chi^2$, CFI, RMSEA and BIC were used to evaluate model fit. The results pertaining to BIC and χ^2 changes are presented in Table 1.

As expected, the hypothesis of perfect fit for the configural invariance model was rejected ($\chi^2(326) = 1341$, $p < 0.001$). However, as evident from Table 2, fit to the configural model as measured with CFI (= 0.97) and the RMSEA (= 0.045) suggested a good fit.

Tables 1 and 2 encapsulate the changes in fit across successively more stringent measurement invariance models with respect to the BIC, CFI and RMSEA. For each comparison, very small ΔCFI and ΔRMSEA values were found (≤ 0.001 for all comparisons – see Table 2). The lowest RMSEA and BIC values were observed for the strict invariance model (i.e. equal loadings, intercepts and error terms), suggesting that this model has the best chance of being successfully replicated in future studies.

TABLE 1: Chi-square test and change in chi-square statistics.

Invariance level	df	BIC	χ^2	$\Delta\chi^2$	Δdf	Δp
Configural	336	160 436	1341	-	-	-
Weak (loadings)	350	160 343	1359	18.5	14	0.1867
Strong (intercepts)	364	160 243	1371	12.0	14	0.6095
Strict (residuals)	385	160 115	1411	39.5	21	0.0085*
Equal latent means	392	160 060	1411	0.7	7	0.9984

*, $p < 0.01$.
BIC, Bayesian information criterion.

TABLE 2: Fit measures and changes in fit measures.

Invariance level	CFI	RMSEA	ΔCFI	ΔRMSEA
Configural	0.97	0.045	-	-
Weak (loadings)	0.97	0.044	0.000	0.001
Strong (intercepts)	0.97	0.043	0.000	0.001
Strict (residuals)	0.97	0.043	0.001	0.001
Equal latent means	0.97	0.042	0.000	0.001

CFI, comparative fit index; RMSEA, root-mean-square error of approximation.

As a final step, the constraint of equal latent means across men and women was added, producing a statistically non-significant $\Delta\chi^2$ ($p = 0.998$). In addition, the ΔCFI and ΔRMSEA of ≥ 0.001 and ≥ 0.001, respectively (see Table 2), indicated that the latent means of the males and females could be treated as equal.

TABLE 3: Standardised factor loadings of the Human Resource Practices Scale items for men and women jointly.

Item	Factor						
	T&D	Rem	PM	SS	Sta	Div	Comm
1	0.85	-	-	-	-	-	-
2	0.84	-	-	-	-	-	-
3	0.73	-	-	-	-	-	-
4	-	0.64	-	-	-	-	-
5	-	0.89	-	-	-	-	-
6	-	0.84	-	-	-	-	-
7	-	-	0.80	-	-	-	-
8	-	-	0.79	-	-	-	-
9	-	-	0.61	-	-	-	-
10	-	-	-	0.70	-	-	-
11	-	-	-	0.88	-	-	-
12	-	-	-	0.82	-	-	-
13	-	-	-	-	0.77		
14	-	-	-	-	0.54	-	-
15	-	-	-	-	0.70	-	-
16	-	-	-	-	-	0.75	-
17	-	-	-	-	-	0.77	-
18	-	-	-	-	-	0.57	-
19	-	-	-	-	-	-	0.74
20	-	-	-	-	-	-	0.85
21	-	-	-	-	-	-	0.80

Note: All factor loadings are statistically significant ($p < 0.05$).
T&D, training and development; Rem, remuneration; PM, performance management; SS, supervisor support; Sta, staffing; Div, diversity management; Com, communication.

TABLE 4: Scale means, standard deviations and reliability coefficients on the Human Resource Practices Scale per gender.

Variable	Men			Women		
	Mean	SD	Cronbach α	Mean	SD	Cronbach α
T&D	11.35	2.99	0.845	11.31	2.95	0.853
Rem	9.03	3.09	0.834	8.96	3.15	0.852
PM	9.99	2.79	0.787	9.96	2.76	0.784
SS	10.58	2.89	0.835	10.52	2.97	0.853
Sta	10.12	2.70	0.735	10.07	2.62	0.710
Div	10.18	2.67	0.742	10.18	2.64	0.763
Comm	11.35	2.99	0.841	11.31	2.95	0.844

T&D, training and development; Rem, remuneration; PM, performance management; SS, supervisor support; Sta, staffing; Div, diversity management; Com, communication.

TABLE 5: Factor and scale correlations of the Human Resource Practices Scale.

Variable	T&D	Rem	PM	SS	Sta	Div	Comm
T&D	(0.85)	0.46	0.49	0.41	0.45	0.45	0.49
Rem	0.51	(0.79)	0.65	0.44	0.51	0.48	0.52
PM	0.56	0.78	(0.75)	0.55	0.54	0.54	0.63
SS	0.45	0.47	0.61	(0.84)	0.46	0.44	0.51
Sta	0.55	0.62	0.68	0.55	(0.84)	0.58	0.54
Div	0.53	0.56	0.65	0.52	0.72	(0.73)	0.60
Comm	0.56	0.56	0.73	0.56	0.65	0.71	(0.84)

Note: Factor correlations are below the diagonal. Scale correlations are above the diagonal. Coefficient alphas are on the diagonal, in parentheses. All correlations are statistically significant ($p < 0.05$).
T&D, training and development; Rem, remuneration; PM, performance management; SS, supervisor support; Sta, staffing; Div, diversity management; Com, communication.

Against the background of the support yielded by the ΔCFI and ΔRMSEA for strict measurement invariance, Table 3 shows the standardised factor loadings obtained for the total group ($n = 2936$). Each factor was well defined and each item was a statistically significant ($p < 0.001$) indicator of its target factor. Standardised loadings varied from 0.89 to 0.54.

Noting that latent means were assessed to be invariant, descriptive statistics on the observed HRPS construct scores for men and women and reliability coefficients are presented in Table 4.

The range of the Cronbach's alpha reliability coefficients of the HRPS scales varied from 0.735 and 0.845 for men and 0.710 and 0.853 for women. The reliabilities of the seven scales were uniformly satisfactory and similar across men and women. Given the evidence in support of strict measurement invariance these reliabilities can be assumed to be invariant across the groups. As a last step the correlations between the latent constructs as well as the scale scores were calculated and are presented in Table 5.

Across the groups, medium-sized correlations between factors were observed, which points to some, but not excessive, overlap of the seven factors. This affirms the interrelatedness of the HRM functions (see Becker et al., 1998) but shows that each scale measures a distinct aspect of HRM practices.

Discussion

The objectives of the study were (1) to examine if the HRPS structure could be replicated across gender groups, (2) to examine the level of measurement invariance attained across men and women and (3) to report on the psychometric properties of the HRPS when used in South African organisations.

The results of the maximum likelihood χ^2 suggest that the hypothesis of perfect fit for all the measurement models had to be rejected (see Table 1). The CFI and RMSEA evidenced that the degree of misfit across the models was relatively small (see Table 2). This suggests that the HRPS structure could be replicated across gender groups, at a configural or baseline level (Objective 1).

The ΔCFI values in Table 2 revealed no detectable deteriorations in fit across successively stringent levels of measurement invariance (note that the CFI does not take model complexity into account). The ΔRMSEA values showed improved fit with successively stringent models. Indeed, the RMSEA and BIC, which both take model complexity into account, showed that the strict measurement invariance model yielded the best fit (see Table 2). Taken together, these results suggest that a measurement model with invariant factor loadings, intercepts and error variances for men and women is the

most likely to be replicated across different studies. This also suggests that the highest level of invariance was achieved (Objective 2). Furthermore, the additional test of latent mean equality was met, which supplements the notion of invariance across men and women.

In conducting this research the seldom-answered call for questioning the assumption of measurement invariance (Tsaousis & Kazi, 2013) was answered. These results are similar to the studies that found invariance when applying the same instrument to men and women (Baker at al., 2007; Wei et al., 2014; Xu et al., 2016), suggesting that males and females are no different when they interpret the items of these instruments. As in the case of many other instruments, the HRPS showed high levels of invariance, implying that gender differences in this regard are not significant. The statistics (Objective 3) presented in Table 4 reflect this equivalence.

The research also affirms the multidimensional conceptualisation of HRM practices, as presented by Nyawose (2009) and Steyn (2012). Contrary to the seminal work of Becker et al. (1998), and many others (Makongoso et al., 2015; Tang et al., 2015; Zhang & Jia, 2010) who perceive HRM functioning as unidimensional, this research demonstrated that the HRM practices are distinct. This is in line with the conceptualisations of Boadau and Gil-Ripoll (2009), Madmoli (2016) and Sun et al. (2007). As far as measurement is concerned, the multidimensionality of HRM practices affirmed here implies that items need to be assigned to each HRM practice, which requires longer questionnaires than when HRM practices are presented as unidimensional.

Practical implications

This study contributes to addressing limitations in the existing literature and practice through validating the factorial structure of the HRPS and its invariance across the gender spectrum. The results empower industrial psychologists in South Africa to use the HRPS to assess the level at which employees are satisfied with the delivery of HRM services across gender. The HRPS is now in compliance with the specifications of the *Employment Equity Act* (*Act 55 of 1998*), specifying that gender comparisons be scientifically shown to be fair and not biased to either group. Doing cross-gender comparisons is to be a matter of interest for practitioners involved in HRM efficiency, as some may be interested in reporting on discrimination related to gendered structures and practices.

The distribution of men and women in the sample presents an over-representation of women when considering the demographics of the South African workforce (Statistics South Africa, 2016). A further limitation is that the elements included in the HRPS may not comprehensively describe the entire HRM function. Both these matters should be taken into consideration when using the instrument. While the focus of this research was on traditional gender-centred differences, and the possible differential treatment of men and women, it should be noted that discrimination against LGBT individuals is rife and considerable (Badgett et al., 2007; Grant et al., 2011). The magnitude of the reported discrimination against LGBT individuals as compared to those in more traditional gender roles should promote debate and research on differences in workplace experiences based on gender-related matters.

Conclusion

The results provide ample evidence of measurement invariance of the HRPS across gender in the workplace context in South Africa and also support the veracity and stability of the elements among job incumbents in South Africa. After establishing measurement invariance, it will be appropriate for researchers to proceed with testing substantial hypotheses about the means and interrelations between these latent constructs across groups (Hirschfeld & von Brachel, 2014).

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Competing interests

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

Authors' contributions

R.S. constructed the research as part of his doctoral degree and therefore wrote the concept paper. G.d.B was the supervisor of the study and assisted in doing the statistical analysis and writing the final manuscript.

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Appendix 1

TABLE 1-A1: Constructs and items of the Human Resource Practices Scale.

Construct	#	Item
Training and development	1	My company is committed to the training and development needs of its employees.
	2	Employees are encouraged to accept education and training within the company.
	3	This organisation has provided me with training opportunities enabling me to extend my range of skills and abilities.
Remuneration	4	My salary and benefits have been an adequate return for the time and energy demanded of me.
	5	I am satisfied with my company reward system to compensate good performance.
	6	The company's compensation and reward system encourages team and individual contributions.
Performance management	7	My company's performance management system is fair and based on clear objectives at the beginning of the term/year.
	8	The company has provided enough information regarding specific methods of the performance evaluation system.
	9	Employees are allowed to formally communicate with supervisors/managers regarding the appraisal results.
Supervisor support	10	My supervisor would personally use his/her power to help me solve my work problems.
	11	My supervisor always gives credit and encourages an employee for a job well done.
	12	My supervisor often lets me know how well he/she thinks I am performing the job.
Staffing	13	Proper company procedures and processes are always followed when staffing/recruitment decisions are made.
	14	Interview panels are used during the staffing process in this organisation.
	15	All appointments in this organisation are based on merit (i.e. the best person for the job is selected, regardless of their personal characteristics).
Diversity management	16	The company spends enough time and effort on diversity awareness related to race, gender and religion.
	17	Management is supportive of cultural difference in this organisation.
	18	People living with disabilities have employment opportunities in this organisation.
Communication	19	My company regularly provides information sharing sessions to all employees.
	20	Continuous improved communications between management and staff is stated as an important company objective and is being practiced.
	21	My company's communication channels are open and effective in dealing with matters that are relevant to employees.

Source: Nyawose, M. (2009). The relationship between human resource management practices, organisational commitment and turnover intentions amongst engineering professionals. Unpublished Master's thesis, University of South Africa, Pretoria, South Africa and and Steyn, R. (2012). Human resource practices and employee attitudes: A study of individuals in ten South African companies. *Alternation: Interdisciplinary Journal for the Study of the Arts and Humanities in Southern Africa, 5,* 167–184.

A conceptual framework for understanding leader self-schemas and the influence of those self-schemas on the integration of feedback

Authors:
J.W. (Cobus) Pienaar[1]
Petrus Nel[2]

Affiliations:
[1]Arbinger Institute
South Africa, South Africa

[2]Department of Industrial
Psychology, University of the
Free State, South Africa

Corresponding author:
Petrus Nel,
nelp1@ufs.ac.za

Orientation: Recently, the importance of blind spots, derailments and failures of leaders have been in the spotlight. Enhancing their levels of self-awareness is one of the steps leaders can take to avoid derailment. While it promotes self-awareness and decreases leadership blind spots, feedback is also considered one of the most effective tools available to modify behaviour. Researchers and practitioners are encouraged to explore the individual characteristics that will enhance or impede the feedback received from others so as to bring about behavioural change and increased levels of self-awareness.

Motivation for the study: The aim of this theoretical article was to consider various conceptual frameworks and literature in an endeavour to illustrate how leaders' self-schemas might explain the underlying reasons why some leaders are more likely to receive, integrate, assimilate and act on the feedback, while others are not, based on how they see themselves in relation to others.

Research design, approach and method: A literature-based method was utilised for this study in order to provide a critical analysis of the available literature and illustrate the different theoretical perspectives and underpinnings.

Practical/managerial implications: Leaders who are more likely to consider feedback and/or ask for feedback from others seem to be less prone to develop a blind spot and will therefore have a more accurate view of themselves. Those who have an over-rating of themselves are unlikely to have an accurate view of themselves. In an attempt to 'protect' this inflated view, such individuals will be less open to negative feedback, as it may challenge their own perspectives and opinions they hold of themselves. Individuals who hold an overly negative view of themselves are more likely to reject positive feedback and less likely to request or accept positive feedback as it may contradict the viewpoint they hold of themselves. They may however be more open to negative feedback that may 'support' their negative view of themselves.

Contribution: This article provided some suggestions as to why leaders may be less willing to accept and integrate feedback into their self-schemas as well as how to develop their levels of self-awareness in order to benefit from feedback.

Sometimes people don't want to hear the truth because they don't want their illusions destroyed. (Friedrich Nietzsche)

Introduction

The popular media and news are fraught with reports of leaders who fail. It is sadly not uncommon to hear of unethical leadership behaviour or business leaders performing poorly. According to Rothstein and Burke (2010, pp. 1–3), 50% – 75% of all individuals in leadership positions are underperforming. This figure is supported by Gentry (2010, p. 316), who maintains that 50% of all managers are ineffective. Considered in this light, the popular notion of 'people do not quit companies, but they quit managers' rings true. In addition, Leslie and Wei (2010, p. 129) assert that those who lead, lack the appropriate skills to meet their organisations' current and future needs. These findings are particularly disconcerting when one bears in mind that leadership is one of the most salient aspects of organisational life.

Rothstein and Burke (2010, p. 1) and Bligh, Kohles, Pearce, Justin and Stovall (2007, pp. 528, 530) agree that although there is ample research focussing on the leadership aspects, factors or facets that make leaders successful, there is insufficient research available that investigates the

'dark-side' of leadership, documenting leaders' blind spots, shortcomings, derailments and failures. While leadership research in the areas just mentioned deserves more attention, the need for effective leaders grows unabated (Rothstein & Burke, 2010, p. 2).

Literature review

Detecting leadership shortcomings, derailments and failures

Leadership derailment can only be addressed when the signs of derailment are discovered early enough and assuming certain conditions have been met. Leaders need to have a clear understanding of what it is that they need to change if they are to change their behaviour. In addition, they should be focussed and motivated to make the necessary changes, and have the necessary support to develop professionally. Self-awareness could be considered an antidote to derailment – if leaders wish to avoid derailment, they have to enhance their levels of self-awareness (Gentry, 2010, pp. 316–317).

Leadership and self-awareness

The ability to be self-aware, or to think about oneself consciously, is what separates humans from other living organisms. Sturm, Taylor, Atwater and Braddy (2014, p. 658) refer to various scholars who state that individual self-awareness can be traced back to early social, clinical and developmental psychology. These scholars define self-awareness as having two primary components: (1) how people see themselves and the process by which people make assessments about themselves (i.e. reflecting on their own levels of self-awareness) and (2) the ability to detect how they are being perceived by others (i.e. feedback received from other individuals; Sturm et al., 2014, p. 658).

Murphy, Reichard and Johnson (2008, p. 258) define self-awareness as, '… the similarity or difference in the way a person sees himself or herself, compared to how they are perceived by others'. Alimo-Metcalfe (1998, p. 37) holds a similar view to self-awareness, describing it as the way one sees oneself, compared with how others see you.

According to Butler, Kwantes and Boglarsky (2014, p. 88), Taylor (2010, p. 57) and Rothstein and Burke (2010, pp. 5–6), there is growing consensus among scholars of leadership that self-awareness forms the foundation for leadership development and leadership effectiveness, and is therefore core to leadership self-management efforts. Self-awareness is explicitly and implicitly recognised by various leadership style theories, including those on authentic, servant and transcendent leadership (Sturm et al., 2014, p. 658).

Butler et al. (2014, pp. 87–88) refer to various instances in the literature that demonstrate that leaders who exhibit higher levels of self-awareness are more likely to be aware of their own emotions and the impact thereof on others. They further quote research that has shown that self-awareness is a critical element to both the personal success of the leader and the success of the organisation as a whole. This is substantiated by Cashman (2014), who argues that self-awareness is directly linked to tangible business performance. Cashman refers to research by David Zes and Dana Landis (n.d.) who used 6977 self-assessments by professionals at 486 publicly traded companies. The self-assessments were used to identify 'blind spots' – disparities between self-reported skills and peer ratings. At the same time, the authors tracked stock performance. Their analysis demonstrated that employees from companies that performed poorly had 20% more blind spots, and that those employees were 79% more likely to have low overall self-awareness.

The importance of self-awareness in relation to leadership is further emphasised in the literature by Rothstein and Burke (2010, pp. 5–6) who state that this psychological characteristic also provides the basis for introspection, choice, priority setting, change and development, whereas Taylor (2010, p. 58) asserts that self-awareness supports the learning process and psychological health of a leader. According to Drucker (in Rothstein & Burke, 2010, p. 5) and Kets de Vries, Vrignaud, Korotov, Engellau and Florent-Treacy (2006, p. 898), leadership success comes to those who know themselves. This is substantiated by Clawson (2010, p. 106), who states that effective leaders realise that the knowledge of who they are is the most important 'tool' that they have at their disposal and that if they cannot use it, they will find it difficult to achieve success. Mintzberg (in Clawson, 2010, p. 91) asserts that self-awareness coupled with reflection is a critical leadership skill.

Although self-awareness seems to be critical in leadership effectiveness, as highlighted in the literature cited above, the way self-awareness is achieved is not always described and articulated (Rothstein & Burke, 2010, p. 6). Herbst and Conradie (2011, p. 3) state that self-insight, which might result in a more accurate self-perception, has been recognised as a prerequisite for conscious, proactive personal change and development, yet it is often poorly developed in individuals. Sturm et al. (2014, p. 659) argue that because leadership transpires from social systems and is therefore a relational process that involves various individuals across a number of levels, leaders should be aware of their influence on others in order to be effective.

As relational beings, people (leaders, in this instance) must interact with others and receive feedback about themselves for healthy and effective functioning (Taylor, 2010, p. 60). Taylor (2010, p. 60) states that one of the ways in which leaders could gain access to the perceptions of others is through the process of feedback.

Leadership and feedback

Leaders can improve and monitor their own development and simultaneously enhance their self-awareness by opting to receive feedback, thereby addressing possible derailment behaviours proactively (Atwater, Waldman, Atwater & Cartier, 2000, p. 294; Sala, 2003, p. 222). According to Lang (2014), it

is almost impossible to become self-aware without receiving feedback from others. Some organisations, particularly those that can afford it will, therefore, utilise various tools and processes as a way to provide feedback to leaders (assessment centres, 360-degree feedback, upward feedback, performance appraisals, formal mentoring and coaching, psychological assessments) in an attempt to increase their self-awareness (Rothstein & Burke, 2010, pp. 4–5). However, Lang (2014) provides an opposing view, stating that a lack of feedback is rife in many organisations, a situation prevailing when feedback is the '… cheapest, most powerful, yet, most under used management tool and process that we have at our disposal …' to assist people understand how others perceive them.

Factors influencing feedback

In a meta-analysis conducted by Smithers, London and Reilly (2005), it was found that eight factors influenced individuals' willingness to use feedback (from peers, subordinates, and supervisors) to improve their performance. These factors include characteristics of the feedback (positive or negative), the leader's reaction to the feedback, his or her personality, their feedback orientation, their beliefs about the change suggested by the feedback, the perceived need for change, goal setting, and taking action from the feedback. Atwater, Brett and Charles (2007) provided a useful categorisation of the above factors into the following dimensions: factors to be considered before giving feedback (e.g. personality and goal orientation), factors to consider about the feedback process (e.g. positive or negative feedback and an individual's reactions to feedback), factors to be considered after receiving feedback (e.g. goal setting, perceived need for change and organisational support in the form of feedback-coaching interventions) and outcomes associated with the feedback process (e.g. changes in behaviour, subsequent changes in performance ratings and employee engagement).

Leaders or managers who receive discouraging or negative feedback that threatens their self-esteem are less likely to use this information to change their behaviour (Kluger & DeNisi, 1996). Those managers who are conscientious, open to new experiences and able to manage their emotions are also more likely to implement the feedback they have received (Smither et al., 2005).

There seems to be several personality characteristics that are likely to influence leaders' reactions to feedback and willingness to use the feedback for goal-setting and action. Leaders who seek out feedback from others, care what others may think of them and are not afraid of receiving feedback are likely to be high in feedback orientation. In addition, such leaders are also more likely to take responsibility for implementing the feedback to improve their performance. Leaders with higher levels of self-efficacy are more likely to put in effort to change their behaviour based on the feedback they have received. Other researchers also found self-efficacy to moderate the relationship between feedback and performance (Bailey & Austin, 2006). It is likely that

individuals who receive positive feedback or feedback that is in line with their own perceptions may not see a real need to change (London & Smither, 2002). Leaders who focus on performance improvement (rather than protecting themselves) are likely to set performance improvement goals. In addition, when such leaders emphasise developmental goals, they are more likely to implement the behavioural changes necessary to improve their performance. To implement such behavioural changes, leaders may use feedback-coaching interventions (Smither, London, Flautt, Vargas & Kucine, 2003). However, such interventions will only be successful if leaders have high levels of self-efficacy regarding their ability to implement the change (Bailey & Austin, 2006).

The challenge, however, is that there are many leaders who simply do not understand the need for feedback, upward and otherwise, in order to stimulate or advance their own development and careers. In addition, they do not have the foresight to see the need for increasing their personal self-awareness and how this may improve their ability to lead. In short, they do not know that they do not know that they should know (Church & Rotolo, 2010, p. 55). Reissig (2011, p. 30) shares a similar opinion, stating that a critical ingredient for a successful leader is that he or she should be open and courageous enough to seek honest feedback from others and to utilise the information in a constructive way to enact change.

The above challenge becomes even more problematic when one considers the fact that leaders at the highest of managerial or leadership levels are often uniformed about how others perceive them, as they habitually surround themselves with those who are less willing and less likely to provide them with truthful feedback (Gentry, 2010, p. 317). Sala (2003, p. 226) mentions a couple of reasons for the lack of feedback to leaders. According to Sala, people who are higher in the organisation are less likely to receive feedback as they have fewer opportunities for feedback, because there are fewer people higher up in the hierarchy and lateral to them who can provide them with feedback. Also, lower-level employees are less likely to give constructive feedback, given their position and their ineptness to understand the complexity of the role of the leader and the skills that it requires. They, therefore, do not feel that they are in a position to comment (provide feedback). Taylor (2010, p. 62) argues that this lack of feedback might also be ascribed to longer tenured leaders who are less likely to seek feedback from others in an attempt to appear more confident and in control, and that those leaders are often seduced into creating a reality for themselves that is disconnected from the realities others in the organisation share.

The lack of feedback may intentionally or unintentionally lead to yet another conundrum, referred to as a blind spot.

Leadership and blind spots

Blakeley (2007, p. x) is of the opinion that blind spots emerge when people do not want to listen (and by implication receive feedback) or learn. The reason provided is that this type of

awareness can be both painful and time consuming and as a result people often avoid it. This is corroborated by Reissig (2011, p. 30) stating that leader blind spots occur when leaders are not actively seeking out independent sources to receive feedback from, and that leaders are not equipped to have their weaknesses identified. As a consequence, their blind spots remain.

Clawson (2010, p. 92) states that people often do not see themselves as others do. This view corresponds with the popular and now dated Johari Window model, which advocates that if there are things that others see and the leader does not, it will increase the 'blind spots' of that person. Blakeley (2007, p. 3) asserts that all people have blind spots and that it is the responsibility of leaders in particular to overcome their blind spots, as blind spots contribute to inferior decision-making, which can lead to flawed decisions, resulting in possibly detrimental consequences for various stakeholders, not just for the leaders. According to Blakeley (2007, p. 4), people refer to blind spots as areas where people remain stubbornly fixed in their views, and they are more likely to dismiss sound arguments, refute evidence and refuse to change their view in any way in those areas. Individuals with a blind spot do not want to expand their understanding by listening to the views or the opinions of others that they in some way 'dislike'. Blind spots, according to Blakeley (2007, p. 7), are often rooted in the threat presented by certain types of information (feedback in this instance) to a person's self-concept and sense of identity.

Reissig (2011, p. 30) is of the opinion that leaders are not always interested to learn about their blind spots as it stirs up feelings of inadequacy, rejection and certain other negative behaviours that are often difficult for them to confront in themselves. This will be exacerbated with time, considering Clawson's (2010, p. 92) theory that the older people get (and, by implication, leaders), the more blind spots they tend to develop.

The underlying assumption regarding feedback is, therefore, that those who receive feedback (leaders, in this instance) will be able to minimise their blind spots, identify their developmental needs and improve on their leadership performance as a consequence (Atwater et al., 2000, p. 276). The problem with this assumption is highlighted by research by Atwater et al. (2000, p. 278), who refer to research by Kluger and DeNisi (1996), providing convincing evidence that feedback does not automatically lead to improved performance for everyone. In their research, Kluger and Denisi (in Atwater et al., 2000, p. 278) have shown that in over 33% of the cases, the performance actually decreased after feedback. It is highly likely that a combination of the eight factors highlighted by the meta-analysis conducted by Smither et al. (2005) might to a varying degree account for these findings. One factor not explicitly identified by the meta-analysis (Smither et al., 2005) nor by Atwater et al. (2007) is the role of self-schemas. The next section will illustrate how leadership self-schemas might be the underlying reason why leaders often fail to seek feedback or integrate it when it does occur.

Leadership self-schemas

Van Knippenberg, Van Knippenberg, De Cremer and Hogg (2005, p. 496) assert that the way a person perceives himself or herself (their self-concept or identity) will have a direct bearing on how a person feels, what they believe, the attitudes they hold, the goals they set and the behaviour that they will exhibit. Other scholars, such as Emery, Daniloski and Hamby (2011, p. 201), however, draw on the term 'self-identity', which frequently appears in contemporary social science and which refers to the 'totality of the individual's thoughts and feelings having reference to himself as an object'. Markus and Sentis (1982) and others (in Stein, 1995, p. 188) employ the term 'self-schemas' to refer to the 'knowledge structures about the self', 'the cognitive residual of a person in interactions with the social environment', 'the active, working structures that shape perceptions, memories, emotional and behavioural responses'. For the purposes of this paper, the authors will use the term 'self-schemas' because it provides a more holistic view and also explicitly and implicitly represents and incorporates the aspects in the realm of self-concept and self-identity.

Murphy et al. (2008, pp. 252–253) express the view that leadership behaviour are particularly affected by the way a leader thinks about himself or herself and that to fully comprehend leadership effectiveness one has to understand the self-schema of a leader. The following sections will, therefore, endeavour to provide a précis based on the available literature showing how feedback might be impacted by a person's (a leader's in this instance) self-schema and, by implication, the level of self-awareness.

Carless, Mann and Wearing (1998, p. 493) state that a leader will avoid or ignore feedback that would contradict their self-schemas or become defensive about feedback received when their view of themselves and those that others hold of them, differ (Alimo-Metcalfe, 1998, p. 38). Alimo-Metcalfe (1998, p. 38) states that leaders do this as a way to maintain a positive self-schema in order to maintain self-esteem. Stein (1995, p. 188) confirms this, referring to various researchers who have shown that people are more likely to direct their attention to information if it is consistent with their established self-schemas.

Murphy et al. (2008, p. 259) and Yammarino and Atwater (1993, p. 234) have shown that self-aware leaders are better able to incorporate others' assessments (feedback) about them into their self-schemas and are, therefore, better able to adjust their behaviour and improve on their shortcomings. This is corroborated by Alimo-Metcalfe (1998, p. 36), who has shown that employees are more satisfied with a leader when their perceptions of the leader match the self-perceptions that the leader holds of himself or herself – being self-aware. Leaders who are self-aware also tend to receive higher leadership ratings (Murphy et al., 2008, p. 259) compared with under-raters and over-raters who normally receive the lowest ratings. Herbst and Conradie (2011, p. 4) state that leaders who have high self-perception accuracy are more

open and willing to incorporate feedback into their self-perceptions. The opposite is also true; those who have low self-perception accuracy results have a tendency to close themselves for or ignore or discount negative feedback that does not resonate with the view the leader has of himself or herself. Church and Rotolo (2010, p. 55) consequently raises the question as to what extent leaders are capable and accurate in their own assessments and whether they may have a tendency to believe their own internal assessments over the perspectives that others may have of them.

Yammarino and Atwater (1993, p. 234) have found that it is not only self-schemas and self-awareness that might impact the ability to integrate feedback into self-schemas, but that there are also various personality and ability factors that might impact a person's self-perception. Those factors could explain why some people are more willing and open for feedback. Although beyond the scope of this research, it is nevertheless important to at least acknowledge those aspects.

Problem statement

Scharmer (2008, p. 52) and Boaz and Fox (2014, p. 4) argue for more research to understand the 'inner place' from which leaders operate. These authors' view is corroborated by Emery et al. (2011, p. 200), who maintain that leadership scholars have recently recognised that self-perception, which forms part of the 'inner world' of a leader, is an important part of leadership and warrants further investigation. Murphy et al. (2008, pp. 250, 252) state that there is too little research available exploring the impact of leaders' self-perception on leadership behaviour, and that only a few leadership scholars utilise theories of the 'self' when attempting to understand leadership behaviour. Murphy et al. (2008, p. 260) also recommend continued research on the development of leadership identity and schemas, while Van Knippenberg et al. (2005, p. 498) have made a persuasive argument for further research in the development of a leader's conception of the self. The aim of these recommendations is to improve our understanding of leadership effectiveness, development and self-awareness. Alimo-Metcalfe (1998, p. 37) and Rothstein and Burke (2010, pp. 4–5) also argue for more research on leadership self-awareness, as self-awareness is an important concept encircling the self that has far-reaching implications for leadership behaviour, leadership development and leadership effectiveness (Murphy et al., 2008, p. 259).

The literature indicates that feedback is one of the most effective tools and processes available to modify behaviour, while it simultaneously promotes self-awareness. People vary in the way they utilise feedback, however. Some embrace the information (feedback) they receive from others to make adjustments, while others disregard it (Murphy et al., 2008, p. 259). On the basis of what Atwater et al. (2000, p. 294) and Yammarino and Atwater (1993, p. 243) found, the authors of this article formulated the following problem statement: Which self-schemas will enhance or impede the feedback received from others so as to bring about behavioural change

and increased levels of self-awareness as well as positive organisational outcomes (e.g. higher levels of employee engagement)?

Contribution and aim

In view of the above problem statement, the aim and contribution of this literature review was, therefore, to consider the available literature explaining the specific self-schemas at play that will enhance or hamper the feedback received from others, while drawing on a conceptual framework from the Arbinger Institute (2008). The authors will endeavour to illustrate how this might explain what types of people (leaders, in this instance) are more likely to receive, integrate, assimilate and act on feedback, and the underlying reasons why that is the case. This article also wishes to contribute to the existing literature by proposing an integrated conceptual framework of leadership self-schemas, in the absence of such a framework in the current literature, and to consider how this might be related to other available literature.

Research design
Research method

A literature-based method was utilised for this study in order to provide a critical analysis of the available literature and illustrate the different theoretical perspectives and underpinnings. This approach allowed for the expansion and adaption of current literature, so as to address the aim of this research.

Location and collection of literature

Various electronic databases were consulted for the purpose of the literature review, which included the business source complete PsycARTICLES and PsycINFO. Only texts published in English were considered in the database search. From all the texts yielded by this search, only those that addressed leadership ineffectiveness, 360-degree feedback, self-awareness, schemas and feedback were included for the review. The reference lists of the articles yielded from the returned results were also consulted for other relevant literature that may not have been considered.

Presentation of literature

The literature will be presented by providing a conceptual framework in light of the objectives and aim of this article, after which the article will conclude with a critical discussion and practical implications, and some suggestions for further research.

A conceptual framework

This section considers the available literature in an attempt to propose an integrated framework to understand leadership self-schemas and those aspects enhancing or impeding feedback from others. Taxonomies from the Arbinger Institute, which focussed on self-deception; Yammarino and Atwater (1993), who focussed on 360-degree feedback;

and Clawson (2010), who focussed on two types of leaders, will be considered in an attempt to offer an integrated framework to understand the phenomena under investigation.

In its book entitled *The Anatomy of Peace*, the Arbinger Institute (2008) developed a complete theory to explain how the phenomenon of self-deception develops within individuals. Simply stated, self-deception is the problem of a person not knowing that he or she has a problem, while blaming others for their problem. One of the Arbinger Institute's (2008) conceptual taxonomies illustrates how people adopt various styles or self-perceptions or self-views, depending on how they see themselves in relation to others. The proposition is that people either hold others in the same regard that they hold themselves (others count the same) or they separate themselves from others by either elevating themselves in relation to others or lowering themselves in relation to others (other people then do not count the same anymore in both these stances). As a consequence, people become self-deceived about the nature of their relationship with others and their realities. This proposition is corroborated by Emery et al. (2011, p. 201), who stated that individuals who view themselves in a certain way will, as a consequence, act in accordance with the way they perceive themselves.

The Arbinger Institute (2008) depicts four types of individuals (resonating with self-schemas) based on how the person sees himself or herself in relation to others, which will ultimately impact how they relate with or behave towards others. This proposition is diagrammatically depicted in Figure 1.

The next section will provide a synopsis of the four types of styles (schemas, in light of the context of this article) as identified by the Arbinger Institute (2008). It is proposed that people are more likely to consider new information from others when they see others as people and if they feel that others view them as people too. This article endeavours to illustrate that people are less likely to consider new information (feedback) if they uphold any of the four schemas depicted in Figure 1, and to show how this relates to the other two taxonomies proposed by Yammarino and Atwater (1993) and Clawson (2010).

Four schemas

Each of the four styles (Arbinger Institute, 2008) will be discussed briefly, and then current research will be considered against this taxonomy. How this could play out in feedback will be explored by means of examples.

Type 1a: 'I am better than': The Arbinger Institute refers to a type of person who holds an 'I am better than' opinion about himself or herself. Someone with this type of self-view tends to view himself or herself among others as someone who is superior, important, right and virtuous in relation to others. In other words, a person with this type of schema tends to view others as inferior, incapable, irrelevant and wrong (Arbinger Institute, 2008, pp. 106–111).
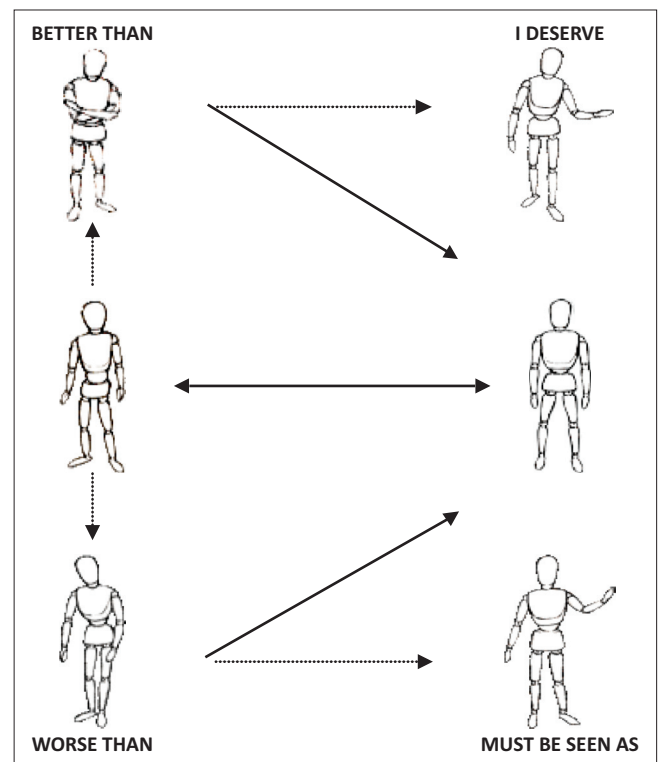
Source: Arbinger Institute. (2008). *The anatomy of peace*. San Francisco, CA: Berrett-Koehler, pp. 106–123

FIGURE 1: Way of viewing the world.

Type 1b: 'I deserve': Associated with the previous schema, the Arbinger Institute identifies another type, one who holds a self-view of 'I deserve'. A person who tends to hold this view of themselves tends to view himself or herself as someone who is being mistreated, a victim and unappreciated, while viewing others as mistreating him or her, being ungrateful and unwise.

Arbinger asserts that although a person may have a view of themselves as 'I deserve' or 'I am better than', it will show up in different ways (e.g. behaviour, cognitive schemas, self-perception), but that these two types still share a similar source in that the person sees himself or herself as better and more worthy than others, and therefore he or she deserves better. For example, 'I deserve' better and different treatment from others, because I feel 'I am better than' others and when this person does not get it, it shows up in that the person sees himself or herself as a victim or as being mistreated (Arbinger Institute, 2008, pp. 111–114).

The interconnectedness between the two preceding types shows up in a case study provided by Blakeley (2007, p. 7), who refers to blind spots, while unintentionally also illuminating the proposed taxonomy to understand why leaders do not react on feedback. The author refers to a case study where she (Blakeley, 2007, p. 7) observed a leader (while consulting him) who was confident and full of self-belief. He subsequently developed a vision for his organisation and enforced its implementation. As a consequence, people started to resist his efforts, as they felt that he was not listening to them and considering their

feedback efforts. According to Blakeley (2007, p. 7), his blind spot is that he has fallen into the trap of believing that his understanding and vision are superior to that of everyone else. Where people came up with reasons why the vision will not work, he dismissed their insights and regarded them as 'resisting change' and unappreciative of his efforts. This is in accordance with the proposed taxonomy of the Arbinger Institute, which states that people with an 'I am better than' self-view, by which they see themselves as superior and right in their thoughts and actions, are therefore more unlikely to incorporate others' feedback (new information) into their current self-schemas and to adjust their mental models. This case study also shows how a person may move from a 'I am better than' self-view to a 'I deserve' self-view, as the leader in this case study may view himself as being mistreated and unappreciated by his employees, while seeing himself as better than they are. This highlights the issue that people might have different styles that they may apply and that style or self-schema is not rigid. People's self-schema may change, depending on the situation.

Type 2a: 'I am worse than': A person with this self-view tends to view himself or herself as fated, insignificant and deficient in relation to others. People with this self-schema tend to view others as privileged and advantageous and are therefore more likely to incorporate feedback in an already fragile self-schema, characterised by being defective and flawed, rarely able to discern between helpful and unhelpful feedback (Arbinger Institute, 2008, pp. 120–123).

Type 2b: 'I must be seen as': Associated with the previous self-view comes another type, which is referred to as the 'I must be seen as'. Someone with this type of view tends to project an image to others of how they want to be seen, in an attempt to ensure that others view them in a particular way – putting on a mask in an attempt to cover up their inefficiencies. They tend to view others as judgemental, threatening and evaluating.

The Arbinger Institute asserts that although a person may view himself or herself as either 'I am worse than' or 'I must be seen as', it may show up in different ways (e.g. behaviour, cognitive schemas, self-perception). Both these types still share a similar source in that the person sees himself or herself as less than others. Illustrative of the interconnectedness between these two types is someone who sees himself or herself as less capable than others (for whatever reason), but who is afraid that others will notice and judge him or her accordingly. Therefore, a person with any of these two schemas projects a self-image of 'must be seen as' in an attempt to divert the attention from his or her insecurities (Arbinger Institute, 2008, pp. 115–119).

Blakeley (2007, p. 13) provides a practical example to illustrate the interconnectedness of these two types, although the author refers to it as blind spots. The author cites a case study where she (Blakeley, 2007, p. 13) observed a leader (while consulting), who had an unsurpassed knowledge in the financial field, but her understanding of people management
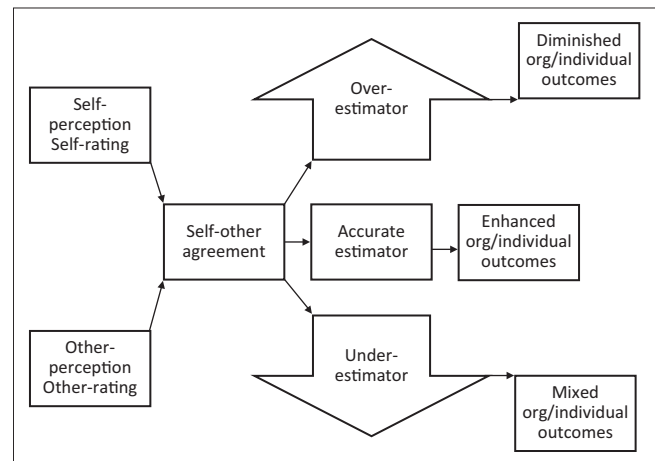
Source: Yammarino, F.J., & Atwater, L.E. (1993). Understanding self-perception accuracy: Implications for human resource management. *Human Resource Management*, 32, 232. https://doi.org/10.1002/hrm.3930320204

FIGURE 2: A model of self-perception accuracy.

was limited. Her employees experienced her as cold and aloof and wanted her to become more consultative and involved with the team. She was resistant to accepting feedback about her management style and refused to change her behaviour. On closer examination, the leader disclosed to the consultant that the main reason for her resistance was that she believed that her authority would be undermined if she became too close to people. She feared that they will challenge her more readily if they became too comfortable with her and that she might be considered weak and even incompetent in the area of people management. Hence, she refused to even consider the prospect of changing her management style. Blakeley (2007, p. 14) argues that it is this refusal to consider her team's feedback, together with the emotional resistance to personal change, that indicates a blind spot.

In terms of the Arbinger taxonomy, someone who views himself or herself 'deficient' (i.e. worse than) in some way, as in the case with this leader who thought she had a limited understanding of people management (in relation to others or to what the position requires), might resist feedback (as in this case), because it might confirm something he or she already knows about himself or herself. In an effort to hide this deficiency (ego), he or she puts on a mask, figuratively speaking, and justifies not considering the feedback received from subordinates.

The preceding taxonomy shows a resemblance to the taxonomy developed by Yammarino and Atwater (1993, p. 232) within the context of 360-degree feedback. This configuration provides a similar stance, but the authors go one step further by indicating that an overestimation (which resembles the 'better than' and 'I deserve' self-schema, as illustrated by the previous model) will lead to diminished organisational and individual outcomes, as depicted in the graphical representation in Figure 2.

The model in Figure 2 asserts that accurate estimators are those individuals whose self-ratings (and by implication, self-perceptions) are in agreement with the ratings of others.

Over-estimators are individuals whose self-ratings are significantly inflated above the ratings of others (representing the 'Better than' and 'I deserve' types in the previous taxonomy) and under-estimators are those whose self-ratings are significantly below the ratings of others (representing the 'I am worse than' and 'I must be seen as' types in the previous taxonomy). Yammarino and Atwater (1993) have illustrated in their research that the individual and organisational outcomes for people in these three different categories (accurate, over- and under-estimators) will differ from each other. They have found that people who have an accurate view of themselves bring about positive and enhanced organisational outcomes, whereas over-estimators produce diminished organisational outcomes, realised in poor supervisor–subordinate relationships, for example. Under-estimators, in turn, affect some organisational outcomes favourably and other less favourably. Under-estimators may, for example, on the one hand show interest in self-development and training, but may on the other hand not pursue possible promotions, given that they see themselves as fated and deficient in relation to others (Yammarino & Atwater, 1993, p. 232).

Sala (2003, p. 225) shows that higher level employees (leaders in this instance) are more likely than lower-level employees to have an inflated view of themselves. Sala (2003, pp. 225, 227) further points out that high-performing individuals' self-perceptions tend to match the perceptions or ratings of others and also refer to research that indicates that poor performers tend to over inflate their self-perception.

The ideas above are supported by Blakeley (2007, pp. 36–37), who states that a person would be more likely to consider feedback if that feedback is in accordance with the person's self-concept (how people view themselves – self-schemas). The author states that a person's self-esteem is founded on three fundamental needs, namely:

- the need to feel respected and valued by those around them
- the need to feel competent and in control
- the need to feel liked and accepted.

A person will be more receptive of new information (conveyed via feedback) if it supports these needs, and people are more likely to reject information (conveyed via feedback) if they sense that the information will challenge their self-schema.

Clawson (2010, p. 94) provides a valuable contribution to the understanding of leadership schemas by identifying two types of people (leaders, by implication). Type 1 refers to 'Outside-In', which is characteristic of people who would adjust their behaviour based on the expectations and requirements on the outside. They will, therefore, consider what the world (and by implication, others) will 'say' or 'think' before they act. Conforming to the expectations of the world is living 'Outside-In'. One of the main reasons provided why people tend to live this way is the fear of

rejection. People, therefore, adjust their behaviour in order to fit in. This description seems to refer to 'must be seen as' when one applies the Arbinger framework.

Type 2 refers to 'Inside-Out', which is characteristic of people who are egocentric, narcissistic, self-centred dictators. This group of people would care little to nothing about the views and opinions of others, even of society, and tend to do what they want, how they want, when they want. According to Clawson (2010, p. 95), there are more of the latter type in leadership positions than the former type. Sala (2003, p. 228) asserts that type will have a direct bearing on leaders who wish to develop and promote a culture of upward feedback. When one applies the Arbinger framework, the Type 2 may refer to either the 'I am better than' or 'I deserve' modalities. The situation becomes dire when we consider that Gentry (2010, p. 316) refers to research that suggests derailments (egocentric, narcissistic, self-centred dictators) are often the result of personality characteristics formed during early ages and are unchangeable when the person reaches adulthood. The author denotes that it is therefore very unlikely that any personality changes would be possible during the adult years. Some managers and leaders may, therefore, be more likely to derail because of their personality and, by implication, no feedback would salvage the situation.

According to Blakeley (2007, p. 45), cognitive dissonance theory suggests that when people are confronted with information that contradicts or challenges their existing beliefs (self-schemas, by implication), they are thrown into a tense and dissonant state of mind. In an attempt to restore harmony, they may avoid the new information or they may change their existing beliefs to support the new information. When new information is too challenging, people tend to have a strong tendency to distort it (provide justification) in order to preserve their existing core beliefs. This might be more so for leaders, considering the literature by Taylor (2010, p. 62) who refers to research by Baumeister (1999) showing that a leader's underlying motive is to preserve his or her self-image and would therefore be highly unlikely to seek out the views of others. The author refers to research that suggests that a person's desire to understand the perspectives of others is influenced by a leader's degree of self-efficacy, self-esteem and impression management behaviour, all of which shape the leader's self-perception.

Critical discussion and practical implications

Self-awareness is not a soft skill anymore, as illustrated in this article and corroborated by Cashman (2014). Cashman (2014) considers it 'the most crucial developmental breakthrough for accelerating personal leadership growth and authenticity and that it is critical to leader success'. Taylor (2010, p. 62) holds the same notion and suggests that organisations should pay more attention to the level of self-awareness among its leadership group, because if leaders are not aware of their impact on others they may not be able to effectively diagnose how others experience their efforts to lead, which will greatly impact their effectiveness as leaders.

The mentioned categories (accurate estimators, over- and under-estimators) in this article may, therefore, have certain implications for leaders in such matters as likelihood for feedback and the development of blind spots. The following three hypotheses could be formulated, given the preceding literature.

- **Hypothesis 1:** Accurate estimators (Yammarino and Atwater)/not separating themselves from others (Arbinger).

It is the hypothesis of the authors of the current article that individuals (and, by implication, leaders) who are more likely to consider feedback and/or ask for feedback from others will consequently be less prone to develop a blind spot and will therefore have a more accurate view of themselves.

- **Hypothesis 2:** Over-estimators (Yammarino and Atwater)/'Better than' and 'I deserve' (Arbinger).

Those who have an over-rating of themselves are unlikely (as suggested by the literature) to have an accurate view of themselves. In an attempt to 'protect' this inflated view, such individuals will be less open to negative feedback, as it may challenge their own perspectives and opinions they hold of themselves. However, this group may be more prone to be on the lookout for positive feedback that reinforces and support the belief they have about themselves. This may lead to situations where such individuals are much less aware of their blind spot(s).

Hypothesis 2 is supported by Murphy, Reichard and Johnson (2008, p. 259), who have illustrated that leaders who overestimate themselves ('Better than' and 'I deserve' in the Arbinger framework) pertaining to their leadership (skills, expertise and behaviour) will be more likely to ignore feedback from others and therefore make them unlikely to set self-improvement goals, which might, by implication, lead to less awareness of the self and by default to more blind spots. People and, by implication, leaders who have an overestimation of their leadership skills are therefore also more likely to misjudge and misdiagnose their own need for improvement (Alimo-Metcalfe, 1998, p. 36). This explains their poor performance, as research by Atwater, Roush and Fischthal (2000, p. 278) show that leaders who overrate themselves, relative to other ratings (feedback), tend to be poorer performers. Herbst and Conradie (2011, p. 10) refer to research by Sosik showing that over-estimators may be viewed by their subordinates as unreceptive, inauthentic, self-centred and uncaring. These adverse perceptions are unlikely to build follower trust and commitment. Atwater, Roush and Fischthal (1995, pp. 38–39) found that leaders who have an inflated view of themselves pose at least three potential problems for organisations, namely (1) if a leader does not perceive weaknesses, he or she will not be aware that changes in behaviour are needed, (2) leaders who have inaccurate self-ratings, compared with those of others, have been found to be poorer performers than those who have accurate self-ratings and (3) those who have an inflated view of themselves are less likely to seek out feedback.

This situation might be further complicated when considering a comment by Chris Argyris of Harvard University (in Clawson, 2010, p. 93) about people who carry with them an image that they are 'smart', and who would naturally tend to assume that their self-image is accurate. He raised a very valid question: How to teach these smart people to learn, when they assume they know more than they do – even about themselves? Hoffer (in Clawson, 2010, p. 93) also points out that the 'learned', that is those who 'know' things, are therefore more likely to be less interested in learning. Hence, they also become less interested in feedback.

- **Hypothesis 3:** Under-estimators (Yammarino and Atwater)/'Worse than' and 'I must be seen as' (Arbinger).

Individuals who hold an overly negative (i.e. degrading) view of themselves are more likely to reject positive feedback and less likely to request or accept positive feedback as it may contradict the viewpoint they hold of themselves. They may however be more open to negative feedback that may 'support' their negative view of themselves.

To summarise the three hypotheses: it is likely that individuals who have inflated views of themselves may find it difficult to accept feedback or new information from others, or they would be reluctant to seek such feedback, and those with a deflated view of themselves may reduce further self-evaluations (seek out feedback).

Herbst and Conradie (2011, p. 12) suggest the development of intensive leadership feedback processes that would provide leaders with comprehensive feedback within a supportive environment in order to increase their level of self-awareness. Upward feedback is especially valuable in attempts to improve leaders. Subordinates are the direct targets of a leader's behaviour and can therefore provide valuable feedback to a leader about his or her leadership from first-hand experience. Subordinate appraisals are also important because often leadership behaviour is observed only by the leader and the subordinate. Subordinate feedback can provide information to the leader about follower perceptions of his or her strengths and weaknesses, and about the degree to which the leader's perceptions match those of the followers (Atwater et al., 1995, p. 36).

Renshon and Renshon (2008, p. 509) state that what leaders see is to a large extent filtered through multiple, though inconsistent, lenses of their own psychologies and beliefs, subject to significant cognitive limitations. Given the problems caused by inaccurate self-evaluations or perceptions, there are at least three ways according to Atwater et al. (1995, p. 39) in which upward feedback may help resolve these problems for leaders: (1) feedback to leaders may make them more aware of their strengths and weaknesses, (2) if this feedback suggests weaknesses the leader was previously unaware of, changes in behaviour may result in order to improve the weak area and (3) an understanding of the discrepancy between self- and other rating responses to feedback would be helpful in determining how feedback should best be delivered.

People should be trained to give, receive and seek out constructive feedback. Coaching might also be a possibility to help leaders identify their blind spots and increase the accuracy in the way they are perceived by others. This approach is supported by Atwater et al. (1995, p. 35), who refer to research by Prue and Fairbank (1981), who have demonstrated that objective feedback had a positive effect on individual performance.

In an effort to enhance the self-awareness of leaders (organisations and those responsible for leadership and management development), learning spaces could also be developed where open dialogue can occur between leaders or managers and those they lead (followers in this instance). Yammarino and Atwater (1993, p. 243) are of the opinion that leadership development programmes should be designed that use upward feedback mechanisms that would permit leaders to learn how they are perceived by others and how to adjust their self-perceptions and behaviours. This is corroborated by Taylor (2010, p. 64), who suggests more opportunities for 360-degree evaluations. Gentry (2010, p. 317) offers specific ways to increase the self-awareness of leaders, which include utilising personality assessments, journaling and using mentors or executive coaches. Leaders are more likely to incorporate the feedback from others into their self-schemas when they see the innate value of the feedback, according to Atwater et al. (2000, p. 280).

It is, therefore, imperative that organisations and those responsible for the development of leaders first assist leaders and managers to understand how their self-schemas might impact or derail the feedback they receive from others. As indicated in this article, self-schemas could derail the best efforts of those who are responsible for the development of leaders, and the research highlighted in this article may save organisations that up to now tried to launch efforts without considering the self-schemas of those they wish to develop millions of rands.

Research considerations

Van Knippenberg et al. (2005, p. 498) insist that the role of a leader's self-conception within leadership effectiveness should be further investigated. Their view is corroborated by Herbst and Conradie (2011, p. 12), who accentuate the need to develop valid measures of self-awareness that are independent of multirater assessment instruments. This is necessary because, according to Yammarino and Atwater (1993, p. 231), various authors have demonstrated that self-estimates are problematic, as they are often inflated, unreliable, invalid, biased and generally suspect when compared to ratings by others (clients, peers, direct supports and superiors). Herbst and Conradie (2011, p. 12) also emphasise the necessity for future research determining alternative and more direct methods for assessing self-perception accuracy beyond the ratings congruence paradigm.

In addition to self-schemas, Atwater et al. (2007, p. 304) suggest future researchers to try and answer the following questions: How does coaching and training enhance feedback, given that feedback allows leaders to move from a self-focus to a task focus? How does the 306-degree feedback create self-awareness in a leader that will be motivational in nature rather than debilitating (emphasising the self as focus)?

Conclusion

Organisational change is inseparable from individual change (Boaz & Fox, 2014, p. 1). This means that leaders will struggle to transform their organisations to become effective if they do not first transform themselves. This article endeavoured to illustrate that, generally, the more accurate an individual's self-perceptions, the greater the likelihood of enhanced outcomes for that individual and the organisations that they lead or manage.

Hopefully, upward feedback in organisations will one day become as common as downward feedback, which could very possibly be more effective for improving performance than the standard processes that are in use currently. Upward feedback has the potential to address and detect leadership shortcomings, derailments and failures while simultaneously facilitating greater self-awareness in an attempt to reduce the blind spots of leaders and managers. This would be more probable if those responsible for the development of leaders and managers first address the omnipresent self-schemas of those they wish to develop.

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Competing interests

Authors' contributions

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Investigating cyberloafing, organisational justice, work engagement and organisational trust of South African retail and manufacturing employees

Authors:
Adele Oosthuizen[1]
Gerhard H. Rabie[1] ®
Leon T. de Beer[2] ®

Affiliations:
[1]School of Industrial
Psychology and Human
Resource Management,
North-West University,
South Africa

[2]WorkWell Research Unit,
North-West University,
South Africa

Corresponding author:
Gerhard Rabie,
gerhard.rabie@nwu.ac.za

Orientation: Understanding cyberloafing, organisational justice, work engagement and organisational trust will lead organisations to develop strategies to counter the consequences of cyberloafing.

Research purpose: This research explored the relationships between cyberloafing, organisational justice, work engagement and organisational trust among South African office workers in the retail and manufacturing industry.

Motivation for the study: Cyberloafing, a prevalent way for office employees to engage in non-work-related activities during work time, is considered harmful to organisations. Limited research exists about the relationship between cyberloafing and organisational justice, organisational trust and work engagement within South Africa.

Research design, approach and method: A quantitative research design was followed. Questionnaires were administered in the South African retail and manufacturing industry; a convenient sample of $N = 224$ was obtained. Descriptive statistics, Cronbach's alpha coefficients, structural equation modelling and bootstrapping were used for data analysis.

Main findings: Organisational justice was positively related to organisational trust while organisational trust was positively related to work engagement; work engagement related negatively to cyberloafing. Organisational trust mediated the relationship between organisational justice and work engagement while work engagement mediated the relationship between organisational trust and cyberloafing.

Practical and managerial implications: Strategies can be developed to enhance and warrant perceptions of organisational justice and fairness that will increase trust levels, leading to higher work engagement and decreased cyberloafing behaviour and resulting in higher productivity.

Contribution or value-add: The research revealed that when employees perceive their organisations as being fair, organisational trust will increase, leading to heightened work engagement levels and ultimately reducing cyberloafing behaviour.

Introduction

The optimisation of employee productivity by means of technology has become an important issue for organisations (Baturay & Toker, 2015). Technology such as computers and the Internet has become synonymous with daily organisational operations (Baturay & Toker, 2015). Employees now have the ability to work smarter, increase their work tempo and consequently their productivity (Al-Shuaibi, Shamsudin & Subramaniam, 2013). Malhotra (2013), however, states that the implementation of new technology such as the Internet in organisations may lead to new types of problems. One of these is the fact that employees are now provided with the opportunity to engage in a new form of counterproductive work behaviour (CWB), which is often referred to as 'cyberloafing' (Lim, 2002). 'Cyberloafing' refers to the use of company Internet during work hours to engage in non-work-related activities (Lim, 2002). Cyberloafing differs from traditional loafing at work; it enables employees to engage in personal activities, while creating the illusion of being hard at work (Jia & Jia, 2015). The International Data Corporation specified that between 30% and 40% of employees use their organisation's Internet for non-work-related tasks (Li, Sarathy, Zhang & Luo, 2014) and that 30% of companies have terminated employees for cyberloafing behaviour (Al-Shuaibi et al., 2013; Liberman, Seidman, McKenna & Buffardi, 2011). The CEO of Keyscore indicated that the impact of cyberloafing on South African companies has not been

estimated and that its impact may cost them millions of rands (Benjamin, 2011). Cyberloafing is therefore a prevalent threat within South African organisations.

Researchers have suggested that it would be beneficial to focus on understanding the motives behind engaging in cyberloafing rather than attempting to entirely eliminate the occurrence thereof (Askew et al., 2014; Blanchard & Henle, 2008; Krishnan, Lim & Teo, 2010).

Various reasons exist why employees engage in cyberloafing. These reasons relate to personality, situational and organisational factors (Ozler & Polat, 2012). Lim (2002) refers to cyberloafing as an escape mechanism, especially when job demands exceed job resources. A popular motivator for cyberloafing is organisational justice. *Organisational justice* refers to the perception of fairness between organisations and their employees (Lim, 2005). Studies have indicated that when employees perceive that organisational injustice has occurred, they tend to retaliate in order to restore justice by engaging in cyberloafing behaviour (Ahmad & Jamaluddin, 2009; De Lara, 2009; Lim, 2002).

DeConinck (2010) states that justice and trust are aspects of social exchange theory, which is introduced by the fair treatment of employees. Blau points out that social exchange refers to 'the voluntary actions of individuals that are motivated by the returns they are expected to bring and typically do in fact bring from others' (Blau, 1964, p. 91). The aforementioned authors therefore link organisational trust and organisational justice. In addition, when an employee perceives his or her organisation as being fair (showing justice), it results in an increase in trust, which in turn leads to improved work engagement (Agarwal, 2014). *Work engagement* refers to the situation in which an employee is passionate about his or her work and workplace (Hassan & Jubari, 2010). It is perceived as a positive experience; therefore, when employees display high levels of work engagement they tend to have more positive experiences (Sonnentag, Mojza, Binnewies & Scholl, 2008).

The main purpose of this study was to examine the structural relationships between cyberloafing, organisational justice, organisational trust and work engagement and to examine possible mediating roles for organisational trust and work engagement.

Literature review
Cyberloafing

Cyberloafing is a prevalent form of CWB when employees retaliate against the organisation by deliberately decreasing their work contribution (Jia, Jia & Karau, 2013). Most researchers categorise cyberloafing as production deviance, because of the impact it has on employee productivity and organisational cost (Lim, 2002; Ozler & Polat, 2012). *Production deviance* refers to behaviours that infringe on organisational norms through low quality and quantity of completed work (Hollinger & Clark, 1982).

Research has shown that cyberloafing may either be destructive or constructive for organisations. It is destructive because of the negative consequences it holds. These negative consequences include loss of employee time and resources, disciplinary actions as well as problems with system security and functionality. In addition, cyberloafing may lead to lawsuits, specifically when confidentiality is breached and harassment occurs. All these consequences have vast financial repercussions associated with them (Blanchard & Henle, 2008; Henle & Blanchard, 2008; Lim, 2002; Malhotra, 2013).

Cyberloafing includes activities that lead to the unproductive use of company time (Ozler & Polat, 2012). These activities include browsing, sending emails, online gaming, watching videos, gambling, online shopping, social media activities, engaging in illegal activities, pornography sites, downloading and posting non-work-related information, as well as generating additional income (Lim, 2002; Henle & Blanchard, 2008; Sheikh, Atashgah & Adibzadegan, 2015). Lim therefore defines *cyberloafing* as any voluntary act of employees using their companies' Internet access during office hours to surf non-job-related websites for personal purposes and to check (including receiving and sending) personal email as misuse of the Internet (Lim, 2002, p. 677).

In order to understand employees' tendencies to cyberloaf, individual and organisational factors should be investigated (Malhotra, 2013). This study therefore focuses on the mediating relationship between organisational justice, which is an organisational factor, and organisational trust, work engagement and cyberloafing, which are all individual factors (Al-Shuaibi et al., 2013).

Organisational justice as an antecedent to cyberloafing

Organisational justice is considered a psychological construct. It is based on employees' perceptions of whether they are treated fairly by their organisations and the way and manner in which their work is affected (Moorman, 1991; Rae & Subramaniam, 2008). When unfair treatment is repeated, it is viewed as organisations being disrespectful towards their employees (Rae & Subramaniam, 2008).

Although different opinions have been aired as to whether organisational justice should be seen as informational and interactional justice, distributive, procedural and interactional justice are the three widely recognised types of organisational justice (Katou, 2013). *Distributive justice* is the perception of the fairness of how resources are distributed (salaries, promotions, selection, succession planning, seniority and status) (Mey, Werner & Theron, 2014). *Procedural justice* is concerned with the fairness of organisational decision-making procedures and whether decisions are consistent and justified (Katou, 2013; Mey et al., 2014). *Interactional justice* refers to employees' perceptions and reactions in terms of communication within the organisation and the manner in which they are treated with concern, dignity and respect (Katou, 2013; Mey et al., 2014). Heponiemi et al.

(2011) state that there are two main motivations for organisational justice to be essential: (1) organisational justice is connected to well-being, attitudes and employee productivity and (2) it is a safeguard between unfavourable factors and their negative influences.

Employees often use neutralisation techniques to justify engaging in cyberloafing (Lim, 2005; Rajah & Lim, 2011). *Neutralisation techniques* refer to the a priori rationalisations used by employees to justify their counterproductive behaviour. In Lim's (2005) study, the metaphor of a ledger was used as a neutralisation technique; employees accumulate credit and use it to justify engaging in cyberloafing. This is consistent with social exchange theory, organisational justice and neutralisation (Polzer-Debruyne, 2008).

Previous studies found that organisational justice influences employees' cyberloafing behaviour (Ahmad & Jamaluddin, 2009; Blau, Yang & Ward-Cook, 2006; Lim, 2002). Page (2015) and Restubog et al. (2011), however, found that organisational justice was not strongly related to cyberloafing. It is because of this inconsistency that these relationships were investigated in the current study. Ambrose and Schminke (2009) further indicated that when an employee experiences or reacts to injustice within his or her organisation, it is generally focused on their overall experience of injustice and not necessarily based on a specific injustice type. Research has found that overall justice is related to each of the forms of organisational justice. Therefore it can be said that overall justice can be used to accurately explain the attitudes and behaviours of employees in terms of organisational justice (Schminke, Arnaud & Taylor, 2015).

Based on the aforementioned research, the current study suggests that overall organisational justice and cyberloafing are negatively related. Thus, when employees perceive injustices to occur in their organisation it is likely that they will engage in cyberloafing.

The mediating relationship between organisational justice and cyberloafing through organisational trust

Conceptualising organisational trust is a rather daunting task because the literature consists of various definitions and types thereof, each with its own influence on behaviour (Farndale, Hope-Hailey & Kelliher, 2011). Rousseau, Sitkin, Burt and Camerer (1998, p. 395) define *organisational trust* as 'a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviours of another'. This definition is widely accepted and used for the purpose of the current study.

Organisational trust is an important factor in the success of daily operations and is based on the interactions with various groups within the organisation (DeConinck, 2010; Katou, 2013; Komodromos, 2013). When employees believe that their organisation will behave in a manner that is favourable

and not harmful, organisational trust is likely to increase (Lowry, Posey, Bennett & Roberts, 2015). Employees invest their talent, energy and time towards reaching organisational goals and make themselves vulnerable to the organisation (Agarwal, 2014). Thus, if there is a lack of trust in organisations, employees will not be willing to fully engage in their work functions because they will feel they have been betrayed (Agarwal, 2014).

Organisational trust is a prominent factor when determining whether employees have the tendency to engage in CWB (Alias, Mohd Rasdi, Ismail & Abu Samah, 2013; Lowry et al., 2015). Therefore, it can be said that when organisations have gained their employees' trust, employees are more likely to strive to achieve the organisation's goals (Alias et al., 2013). Consequently, when there is a lack of trust, employees will engage in CWB such as cyberloafing (Alias et al., 2013) and, in so doing, influence their performance (Fourie, 2011).

Organisational trust encourages justice and fairness within organisations (Komodromos, 2013). Aryee, Budhwar and Chen (2002) and Katou (2013) found that all three forms of organisational justice have an impact on organisational trust. In addition, Farndale et al. (2011) and Mey et al. (2014) discovered that a positive relationship exists between organisational trust and perceived organisational justice. Consequently, the expectation is that if perceptions of organisational justice increase the trust employees have in the organisation will also increase and this in turn will reduce cyberloafing. Thus, the current study investigated the mediating effect of organisational trust between organisational justice and cyberloafing.

Work engagement as a mediator in the relationship between organisational justice and cyberloafing

Research on work engagement has become an important topic within industry (Rothmann & Rothmann, 2010). Environmental and individual factors are considered to be determinants of work engagement (Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009). Furthermore, individuals who function optimally and add in improving the organisation's interest usually portray high work engagement (Diedericks, 2012; Lin, 2010).

The most recognised perspective used within this study was brought forth by Schaufeli, Salanova, González-Romá and Bakker (2002). This perspective defines *work engagement* as 'positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption' (Schaufeli et al., 2002, p. 74). *Vigour* refers to having exceptional levels of energy and cognitive resilience while devoting more time to one's work tasks irrespective of any difficulties. Dedication is often characterised by having enthusiasm, motivation, meaning, pride and challenge in one's work. Absorption is showed by being completely content with and concentrated on one's work. Therefore, engaged employees are passionate, dedicated and hard-working (Schaufeli et al., 2002).

There are four reasons why engaged employees tend to perform well in their jobs. These reasons relate to the experience of positive feelings, the improvement in overall health (psychological and physical), the creation of personal and job resources and the influence on others' employment levels (Bakker, Schaufeli, Leiter & Taris, 2008). In contrast there are studies indicating that disengagement leads to distrust, burnout and low productivity (Lin, 2010; Ugwu, Onyishi & Rodríguez-Sánchez, 2014). Therefore, when organisational trust is high, employees will be more engaged. Engaged employees are dedicated to their work because they find pleasure in it and demonstrate a willingness to go beyond what is expected (Heine, 2013).

Limited research exists regarding the relationship between organisational justice and work engagement. Studies had conflicting results (Hassan & Jubari, 2010; Inoue et al., 2010; Kim, Del Carmen Triana, Chung & Oh, 2016). Therefore this study aims at examining these relationships and suggests that a mediating relationship exists between organisational justice and cyberloafing through work engagement.

Katou (2013, 2015) further found a mediating effect between organisational justice, organisational trust and employee reactions (including work engagement). This indicates that when organisational justice is visible, organisational trust will develop and lead to a high level of work engagement. Previous studies indicated that work engagement was positively and significantly related to distributive justice, procedural justice and interactional justice (Agarwal, 2014; Hassan & Jubari, 2010; Inoue et al., 2010; Moliner, Martínez-Tur, Ramos, Peiró & Cropanzano, 2008). Therefore, when employees perceive that they are treated fairly, they will have a positive attitude towards their jobs and organisations, thus being more engaged (Moliner et al., 2008) and less likely to engage in cyberloafing. Employees will be more driven and involved when they perceive that organisational justice is present (Inoue et al., 2010).

Research also found a positive link between organisational trust and work engagement (Agarwal, 2014; Chughtai & Buckley, 2011; Heine, 2013; Lin, 2010; Ugwu et al., 2014). Although only procedural and interactional justice was measured, Agarwal (2014) discovered that organisational trust mediates the relationship between organisational justice and work engagement. Lin (2010) suggested that trust between the organisation and employees fosters employees that are more dedicated, innovative and energised. When an organisation fails to keep promises, employees feel the organisation has failed them, which leads to a decrease in trust and work engagement (Lin, 2010).

Chughtai and Buckley (2011) state that if supervisors display care, concern, respect and support towards their subordinates, a sense of obligation is developed among employees to respond to these actions with positive behaviours and attitudes. This may involve greater vigour, dedication and absorption
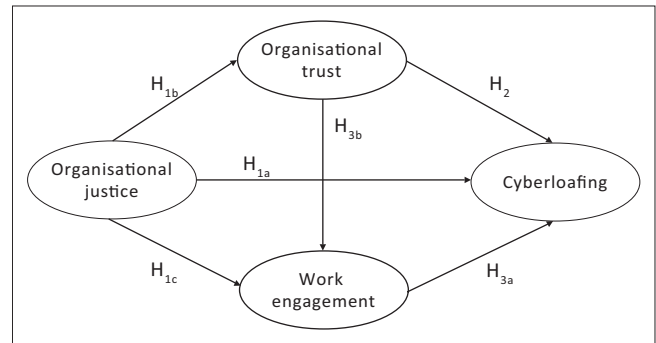
H, hypothesis.

FIGURE 1: Hypothesised research model.

(work engagement) (Agarwal, 2014; Chughtai & Buckley, 2011) or CWB if employees feel that the organisation is unjust or cannot be trusted (De Lara, 2009). In addition, employees with low engagement may engage in CWB in retaliation against an unfavourable work environment (Ariani, 2013). Koopmans, Bernaards, Hildebrandt, De Vet and Van der Beek (2014) found a moderate positive correlation between CWB and overall work engagement as well as a weak to moderate negative correlation between CWB and work engagement subscales. This suggests that, when low levels of work engagement are present, employees will engage in cyberloafing.

Based on the aforementioned overview of the literature, this study made the following hypotheses (see Figure 1):

- **Hypothesis 1a (H_{1a}):** There is a negative relationship between organisational justice and cyberloafing.
- **Hypothesis 1b (H_{1b}):** There is a positive relationship between organisational justice and organisational trust.
- **Hypothesis 1c (H_{1c}):** There is a positive relationship between organisational justice and work engagement.
- **Hypothesis 2 (H_2):** There is a negative relationship between organisational trust and cyberloafing.
- **Hypothesis 3a (H_{3a}):** There is a negative relationship between work engagement and cyberloafing.
- **Hypothesis 3b (H_{3b}):** There is a positive relationship between organisational trust and work engagement.
- **Hypothesis 4 (H_4):** Work engagement mediates the relationship between organisational justice and cyberloafing.
- **Hypothesis 5 (H_5):** Organisational trust mediates the relationship between organisational justice and cyberloafing.

Research method
Research approach

A quantitative cross-sectional research design was utilised to collect data to examine differences and relationships within the target population (Creswell, 2014; De Vos, Strydom, Fouché & Delport, 2011).

Participants

The population of this study was South African office workers within the retail and manufacturing industry who use their organisations' Internet access as part of their daily

TABLE 1: Characteristics of the participants (N = 224).

Item	Category	Frequency	Percentage
Gender	Male	124	55.40
	Female	100	44.60
Race	Black	62	27.70
	White	125	55.80
	Coloured	16	7.10
	Indian	18	8.00
	Asian	3	1.30
Household	Single (living alone)	42	18.80
	Married/living with partner	13	5.80
	Divorced/separated	156	69.60
	Living with parents	13	5.80
Education	Grade 12	102	45.50
	Degree (graduate or honours)	84	37.50
	Diploma	21	10.70
	Postgraduate degree	14	6.30
Home language	Afrikaans	88	39.30
	English	78	34.80
	Sepedi	15	6.70
	Sesotho	7	3.10
	Setswana	5	2.20
	siSwati	3	1.30
	Tshivenda	1	0.40
	isiNdebele	1	0.40
	isiXhosa	6	2.70
	isiZulu	13	5.80
	isiTsonga	6	2.70
	Missing system	1	0.40

work operations. For purposes of this study a convenience non-probability sampling method was applied and participants were therefore selected based on their availability to the researcher (Bryman & Bell, 2015). Employees were made aware of the research project. An electronic link to the survey was sent to office workers at the different locations of the organisation; 224 participants responded. This represents a response rate of 41%. All the questionnaires were workable and were analysed.

Table 1 represents a breakdown of the participants comprising the sample.

The sample comprised 55.4% male and 44.6% female participants, from organisations within the retail and manufacturing industries. White participants represented 55.8% of the sample, followed by 27.7% black African, 7.1% coloured, 8% Indian and 1.3% Asian participants.

In terms of households, 69.6% of participants were divorced or separated, while 18.8% were single or living alone. A total of 45.5% of participants had a grade 12 qualification, followed by 37.5% with a university degree, 10.7% with a diploma and 6.3% with a postgraduate degree. Participants were mainly Afrikaans (39.3%) and English (34.8%) speaking.

Data collection

Permission was obtained from the participating organisations, after which data were collected over a 4-week period. An email with the necessary information regarding the study and an electronic link to the survey were sent to potential participants. A follow-up email was sent after 1 week and another after 2 weeks. Anonymity of participants was ensured by not requesting any information by which the participants could be identified. Participation was voluntary in nature and no incentives were provided to participants for participating in the study.

Measuring instruments

Cyberloafing

Blanchard and Henle's (2008) adapted version of Lim's (2002) self-reporting Cyberloafing scale was utilised to measure cyberloafing. The scale consists of 22 items, of which 'Checked non-work-related email' and 'Visited newsgroups or bulletin boards' are examples. A five-point Likert-type scale ranging from 'never' (1) to 'a great deal' (5) was used. A Cronbach's alpha coefficient of 0.84 for this scale was obtained by Blanchard and Henle (2008). Restubog et al. (2011) obtained a Cronbach's alpha coefficient of 0.94 for this scale.

Organisational trust

The Trust Scale that was developed by Gabarro and Athos (1976) and adapted by Robinson (1995) was used to measure trust. The instrument consists of 10 items (e.g. 'I can expect my employer to treat me in a predictable and consistent manner' as well as 'My employer is always reliable'). The instrument used a five-point Likert-type scale ranging from 'strongly disagree' to 'strongly agree'. Mey et al. (2014) found a Cronbach's alpha of 0.86.

Organisational justice

The Perceived Overall Justice (POJ) scale developed by Ambrose and Schminke (2009) was used. The instrument contains six items (e.g. 'In general, the treatment I receive around here is fair'). A seven-point Likert-type scale was used ranging from 'strongly disagree' (1) to 'strongly agree' (7). Furthermore, items POJ2 and POJ6 were reverse scored. In a study regarding job insecurity, organisational justice and employee performance, an alpha coefficient of 0.84 was found (Wang, Lu & Siu, 2015). In addition, when also investigating a mediating effect of work engagement from uncertainty management theory perspective, a Cronbach's alpha coefficient of 0.84 was obtained (Wang et al., 2015).

Work engagement

Work engagement was measured by using the Utrecht Work Engagement Scale developed by Schaufeli et al. (2002). The scale consists of nine items and measures the three dimensions of work engagement: vigour (three items, e.g. 'When I get up in the morning, I feel like going to class/work'), dedication (three items, e.g. 'I'm enthusiastic about my study/job') and absorption (three items, e.g. 'When I'm studying/working, I forget everything around me'). The instrument used a seven-point frequency scale ranging from 0 (never) to 7 (every day). Storm and Rothmann (2003) found acceptable internal consistency for the scale.

Statistical analysis

The statistical analysis was conducted with Mplus 7.31 (Muthén & Muthén, 2015). The study utilised structural equation modelling to test the research model. The mean and variance adjusted weighted least square estimation method was used, which is suitable for categorical data analysis (Rhemtulla, Brosseau-Liard & Savalei, 2012).

Specifically confirmatory factor analysis was further used to determine the factor loadings of the observed constructs in a measurement model. The goodness of fit was evaluated by examining the following fit indices against the cut-off criteria shown in parentheses: comparative fit index (CFI; ≥ 0.90), Tucker–Lewis index (TLI; ≥ 0.90) and the root mean square error of approximation (RMSEA; ≤ 0.08) (Cudeck & Browne, 1993; Schermelleh-Engel, Moosbrugger & Müller, 2003). The reliability of the instruments was determined by means of Cronbach's alpha. Values of 0.70 and above were considered acceptable for the Cronbach's alpha coefficients (Struwig & Stead, 2001). In addition, correlations were determined between the latent constructs. The practical significance for correlation coefficients were viewed to be a medium practical effect if the values were 0.30 and above and a large practical effect if the values were 0.50 and above (Cohen, 1992). Structural regressions were then used to determine the direction and statistical significance of the beta coefficients, which were used to investigate hypotheses H_{a1}–H_{3b}. The parameters of the model were tested at an alpha level of 0.05 ($p < 0.05$).

In addition, to investigate hypotheses 4 and 5, a mediation analysis was conducted using bootstrapping to obtain estimates and confidence intervals (CIs). Bootstrapping was set to 10 000 resampling draws and used to determine the indirect relationships between the constructs. When the CI did not include zero, the parameter was deemed to be significantly different from zero.

Results
Measurement models: Fit, factor loadings, reliability and correlations

The confirmatory factor analysis (CFA) results indicated that the measurement model adequately fitted the data (CFI = 0.94; TLI = 0.93; RMSEA = 0.05). Interpretation of the model results therefore continued without any post hoc modifications to the model. Table 3 presents the means, standard deviations and correlation matrix for the study variables, with the Cronbach's alpha coefficients on the diagonal in brackets for each construct.

As can be seen from Table 2, all of the individual items loaded significantly ($p < 0.001$) on the corresponding factors. Normally, scored items are presented as positive values and reversed scored items are indicated with negative values.

All the Cronbach's reliability coefficients were above the cut-off threshold ($\alpha \geq 0.70$), demonstrating acceptable internal

TABLE 2: Factor loadings for the latent variables.

Factor	Item	Loading	SE	p
Organisational justice	just1	0.91	0.01	0.001
	just2	-0.66	0.04	0.001
	just3	0.71	0.03	0.001
	just4	0.92	0.01	0.001
	just5	0.93	0.01	0.001
	just6	-0.66	0.04	0.001
Work engagement	uwes1	0.50	0.07	0.001
	uwes2	0.61	0.05	0.001
	uwes3	0.85	0.03	0.001
	uwes4	0.87	0.03	0.001
	uwes5	0.74	0.04	0.001
	uwes6	0.68	0.05	0.001
	uwes7	0.71	0.04	0.001
	uwes8	0.77	0.04	0.001
	uwes9	0.48	0.05	0.001
Organisational trust	trust1	0.82	0.82	0.001
	trust2	0.74	0.74	0.001
	trust3	-0.78	-0.78	0.001
	trust4	0.81	0.81	0.001
	trust5	-0.86	-0.86	0.001
	trust6	0.87	0.87	0.001
	trust7	-0.73	-0.73	0.001
	trust8	0.92	0.92	0.001
	trust9	0.87	0.87	0.001
	trust10	0.95	0.95	0.001
Cyberloafing	loaf1	0.72	0.03	0.001
	loaf2	0.76	0.03	0.001
	loaf3	0.75	0.03	0.001
	loaf4	0.59	0.05	0.001
	loaf5	0.63	0.04	0.001
	loaf6	0.65	0.04	0.001
	loaf7	0.68	0.04	0.001
	loaf8	0.59	0.04	0.001
	loaf9	0.63	0.05	0.001
	loaf10	0.64	0.05	0.001
	loaf11	0.45	0.06	0.001
	loaf12	0.60	0.06	0.001
	loaf13	0.74	0.06	0.001
	loaf14	0.51	0.05	0.001
	loaf15	0.50	0.06	0.001
	loaf16	0.67	0.05	0.001
	loaf17	0.54	0.06	0.001
	loaf18	0.62	0.07	0.001
	loaf19	0.51	0.05	0.001
	loaf20	0.81	0.03	0.001
	loaf21	0.59	0.06	0.001
	loaf22	0.72	0.04	0.001

SE, standard error; all p-values < 0.001; reversed items have negative loadings.

consistency for all of the factors (Table 3). Specifically, the lowest value was for organisational justice ($\alpha = 0.73$) and the highest value for cyberloafing ($\alpha = 0.93$). The mean scores, adjusted for reversed items, showed that participants tended towards answering on the positive side ('agree') of the scales for organisational justice, organisational trust and work engagement but between 'never' and 'rarely' on the cyberloafing scale. In terms of the correlational relationships between the variables, the correlation matrix showed that cyberloafing was negatively correlated with work engagement ($r = -0.21$). The results, however, showed no significant correlations between cyberloafing and either organisational justice or trust ($p > 0.05$).

TABLE 3: Reliabilities and correlation matrix for the latent variables.

Variables	Mean	SD	1	2	3	4
1. Organisational justice	3.55	0.79	(0.73)	-	-	-
2. Organisational trust	4.04	1.13	0.59*‡	(0.82)	-	-
3. Work engagement	4.88	0.93	0.26*†	0.44*†	(0.89)	-
4. Cyberloafing	1.74	0.44	-0.01	-0.05	-0.21*	(0.93)

SD, standard deviation; mean and SD based on total scores; Cronbach's reliability coefficients in brackets on the diagonal.
†, Medium practical effect; ‡, large practical effect.
*, Correlation statistically significant $p < 0.01$.

TABLE 4: Regression results for the structural model.

Structural path	β	SE	p	Result
Organisational justice – organisational trust	0.57	0.04	0.001	Significant
Work engagement – cyberloafing	-0.23	0.07	0.001	Significant
Organisational trust – take over engagement	0.41	0.07	0.001	Significant
Organisational justice – work engagement	0.02	0.07	0.801	Not significant
Organisational justice – cyberloafing	0.03	0.08	0.651	Not significant
Organisational trust – cyberloafing	0.03	0.08	0.680	Not significant

β, beta coefficient; SE, standard error.
p, two-tailed statistical significance; $p < 0.001$
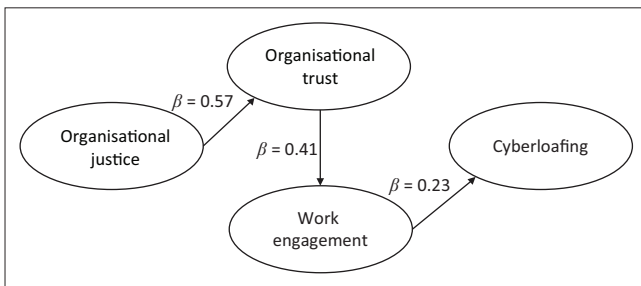
β, beta coefficien.
FIGURE 2: Structural model with significant regressions.

Furthermore, organisational justice was positively correlated with both organisational trust ($r = 0.59$; large practical effect) and work engagement ($r = 0.26$; borderline medium practical effect). Organisational trust positively correlated with work engagement ($r = 0.44$; medium practical effect). Organisational justice was therefore positively correlated with organisational trust and work engagement, as expected.

Structural model fit and regression results

In accordance with the research hypotheses (H_{1a}–H_{3b}), regression paths were added to the final measurement model to constitute the structural model. The structural model also fitted the data (CFI = 0.92; TLI = 0.92; RMSEA = 0.05). The results of the regressions are presented in Table 4.

Organisational justice had a positive relationship with organisational trust ($\beta = 0.57$, SE = 0.04, $p = 0.001$; supporting H_{1b}). Furthermore, a statistically negative relationship was found between work engagement and cyberloafing ($\beta = -0.23$, SE = 0.07, $p = 0.001$; supporting H_{3a}). Organisational trust had a positive relationship with work engagement ($\beta = 0.41$, SE = 0.07, $p = 0.001$; supporting H_{3b}). Therefore, collectively, H_{1b}, H_{3a} and H_{3b} were supported. However, H_{1a}, H_{1c} and H_2

were rejected. Figure 2 presents the regression relations between cyberloafing, organisational justice, organisational trust and work engagement.

Indirect effects

Based on the significant regression results (as can be seen in Figure 2) two potential indirect effects (mediation models) were possible, that is (1) the mediating role of organisational trust in the relationship between organisational justice and work engagement and (2) the mediating role of work engagement in the relationship between organisational trust and cyberloafing. It is important to note that no direct relationships were significant in this model from organisational to the mediated outcome cyberloafing – indicating only the potential for full mediating factors (indirect only) and not partial (complementary mediation models) (Zhao, Lynch & Chen, 2010). A positive indirect effect of 0.24 from organisational justice to work engagement was found with organisational trust as mediator [$p < 0.001$; 95% CI (0.14, 0.34)]. Furthermore, work engagement was found to be a mediator in the relationship between organisational trust and cyberloafing, but this estimate was negative, indicating that organisational trust can reduce the occurrence of cyberloafing – but only through work engagement. Neither of these two relationships had any significant direct effects on their respective outcome variables, indicating that potential hidden relationships were presented in the model and did not exist if not for the mediators. Further, no significant effects were found for cyberloafing; consequently hypotheses 4 and 5 are rejected.

Discussion

The main objective of this study was to investigate the relationships between cyberloafing, organisational justice, work engagement and organisational trust among office workers within the retail and manufacturing industry. The literature review that was conducted revealed that these constructs have not been researched together in a single study. This research further provided a more in-depth understanding of the relationships that exist between these four constructs.

Summary of findings

The first objective was to examine the relationships between organisational justice, organisational trust, work engagement and cyberloafing. The results showed that the direct relationship between organisational justice and

cyberloafing was not significant, nor was the direct relationship between organisational justice and work engagement; therefore, both H_{1a} and H_{1c} were rejected. The reason for this may be attributed to the exchange relationship where organisational justice is evaluated against the behaviour of the organisation, supervisor and employee (Cohen-Charash & Spector, 2001). Therefore, organisations may treat their employees fairly but they still continue to engage in cyberloafing because of supervisors or co-workers. It might be that employees still perceive that they are treated unfairly by these supervisors and co-workers. In addition, limited research exists on the relationship between organisational justice and work engagement. In this study employees might have felt that they were treated unfairly by their organisation. This can result in lower work engagement levels (Wang et al., 2015). Furthermore, most studies that found a relationship between organisational justice and work engagement measured organisational justice separately, which suggests that only certain factors are perceived to be unfair and not the entire organisation (Hassan & Jubari, 2010; Inoue et al., 2010).

No significant relationship was found between organisational trust and cyberloafing, which led to the rejection of H_2. Previous studies found a negative relationship between organisational trust and CWB; therefore, employees may engage in other forms of CWB and not only in cyberloafing to retaliate against their organisation (Alias et al., 2013; Lowry et al., 2015). The potential reason for the result may also be that cyberloafing has become an organisational norm (Page, 2015) or that it is a constructive distraction to relieve stress and restore energy (Lim & Chen, 2012). This shows that, although employees believe that their employer has their best interest at heart, they will still engage in cyberloafing behaviour.

As expected, the results indicated that a positive relationship exists between organisational justice and organisational trust, which supports H_{1b}. This finding is supported by previous research by Farndale et al. (2011) and Mey et al. (2014), who found a positive relationship between organisational trust and perceived justice. These studies measured overall organisational justice. They further suggested that when employees perceive their organisations to be fair they will display higher levels of trust in management and the organisation. Previous research has also found a positive relationship between procedural, distributive and interactional justice and organisational trust (Agarwal, 2014; Aryee et al., 2002; Cohen-Charash & Spector, 2001; DeConinck, 2010; Katou, 2013; Wong, Wong & Ngo, 2012).

The final objectives were to examine whether organisational trust mediates the relationship between organisational justice and cyberloafing and further to determine whether work engagement mediates the relationship between organisational justice and cyberloafing. The current study, however, did not find these mediating relationships, therefore rejecting H_4 and H_5. These inconsistencies can be explained by employees trusting their organisations and feeling that they are being treated fairly. However, it is possible that employees engage in cyberloafing behaviour due to a low workload demand, boredom or because their work is not challenging enough and not due to a lack of trust or justice (Page, 2015). Furthermore, the current study investigated overall justice and did not investigate the types of justice separately as was done in studies where procedural, interactional and distributive justice were found to be related to work engagement (Hassan & Jubari, 2010; Inoue et al., 2010). The participants may further experience injustice related to a procedure that is associated with a specific type of justice, which is not measured in this study, but influences work engagement levels. In addition, employees may retaliate against distrust or unfair treatment by engaging in other forms of CWB and not necessarily cyberloafing specifically.

Although the researcher did not explicitly hypothesise mediating relationships between organisational justice, work engagement or organisational trust and cyberloafing, these were also tested. The results revealed that there was indeed a significant mediating relationship between organisational trust, work engagement and cyberloafing, indicating that work engagement is the mechanism by means of which cyberloafing is suppressed when organisational trust is perceived. This also makes intuitive sense; when employees are engaged in their work, they are less likely to be busy with non-work activities. The results also showed that there was a mediating relationship between organisational justice and work engagement through organisational trust. This may indicate that when employees perceive their organisations to be fair, trust towards the organisation might increase, which in could turn lead to engaged employees. These relationships are consistent with previous research, which found that organisational trust and work engagement are related (Agarwal, 2014; Chughtai & Buckley, 2011; Heine, 2013; Lin, 2010; Ugwu et al., 2014). This research also support H_{3b}, which stated that organisational trust had a significant relationship with work engagement. At least two other studies also found support for H_{3a}; Ariani (2013) as well as Koopmans et al. (2014) found negative relationships between work engagement and CWB. Counterproductive work behaviour is seen as the umbrella term under which cyberloafing is classified; hence it can be concluded that a negative relationship exists between cyberloafing and work engagement. This indicates that when employees feel that their organisations cannot be trusted, they might become disengaged, which could then lead to higher cyberloafing tendencies. Therefore it can be postulated that cyberloafing behaviour might negatively influence the productivity of the employees.

Practical implications

This study provides evidence that employee perceptions are important in the interest of preventing cyberloafing behaviours within South African organisations. Consequently organisations should focus on the perceptions of their

employees regarding organisational justice and trust, since two constructs influence employees' work engagement levels. Levels of work engagement in turn has been found to suppress cyberloafing behaviours.

Our results provide empirical support for greater fairness when it comes to decisions and procedures. Organisations might consider monitoring systems to address cyberloafing as well, but scholars have suggested that having a cyberloafing monitoring system in place can have the reverse intended effect and decrease organisational trust and work engagement, which in turn influences employee morale and productivity negatively (Gumbus & Grodzinsky, 2009). However, it is also necessary to consider other factors that can impact cyberloafing, such as demographics, employee boredom, job dissatisfaction, self-regulation, intrinsic motivation and personality factors (Jia & Jia, 2015; Kim et al., 2016; Ozler & Polat, 2012).

Limitations and direction for future research

Limitations of this study are related to the data collection and analysis process. The first limitation might be the manner in which the cyberloafing construct was measured. For example, cyberloafing was measured with a self-reported questionnaire; objective information might have provided a more accurate reflection of the participants' Internet usage behaviour. However, such data were unavailable for this study.

It is further possible that common method bias influenced the correlations between the constructs. External validity (generalisability) can also be viewed as a possible limitation. External validity refers to how the interpretations and results can be generalised (Polit & Beck, 2010). This study was conducted within two sectors only; therefore research should focus on other sectors in order to generalise the outcomes to the entire South African population. Furthermore, the sample size may have had a potential impact on the strengths of the relationships. Another limitation relates to the manner in which organisational justice was measured. This study measured overall organisational justice, therefore excluding the three types of organisational justice. Furthermore, the study could extend the measurement of organisational trust to the other types of organisational trust, such as supervisory trust. By focusing on a specific population, more definite conclusion and customised initiatives could be developed.

Lastly, a cross-sectional research design was used in this study, which had an impact on exploring causal relationships between constructs. Conducting a longitudinal design to determine the causal effect between the constructs is suggested (Rindfleisch, Malter, Ganesan & Moorman, 2008). These recognised limitations can assist future researchers in defining future studies. In addition, limited research exists regarding the motivation behind cyberloafing. Future research can therefore explore the relationship between cyberloafing and motivation.

Conclusion

This study presented evidence of the relationships between organisational justice, organisational trust, work engagement and cyberloafing. Specifically, when organisations are perceived to be fair, it increases organisational trust, which then leads to a higher level of work engagement and consequently reduces the occurrence of cyberloafing behaviour. Organisations should therefore not neglect employees' perceptions of fairness and trust; they should consider interventions to decrease unfair behaviour towards employees and to build employees' trust and engagement levels.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

A.O. was the Master's student who initialised the research topic, collected the data and wrote the majority of the article. G.H.R. was the main supervisor. L.T.d.B. was the co-supervisor and also assisted with the statistical calculations.

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Perceptions of Chinese and Tanzanian employees regarding intercultural collaboration

Authors:
Claude-Hélène Mayer[1]
Christian M. Boness[1]
Lynette Louw[1]

Affiliations:
[1]Department of Management, Rhodes University, South Africa

Corresponding author:
Claude-Hélène Mayer,
claudemayer@gmx.net

Orientation: Chinese organisations have a long tradition of operating in Tanzania, and even today, Tanzania is the gateway for Chinese interests entering sub-Saharan markets.

Research purpose: The purpose of this article was to explore and understand the perceptions of Chinese and Tanzanian employees working in a private Chinese organisation in Tanzania.

Motivation for the study: The authors would like to contribute to the discourse on Chinese and Tanzanian collaboration in southern Africa to improve context-based intercultural collaboration from a human resource management perspective.

Research design, approach and method: The study used a case study approach within a hermeneutical research paradigm. Data were collected through semi-structured interviews and observation in a selected private Chinese organisation. Data were analysed by content analysis using Terre Blanche's five-step model of content analysis.

Main findings: The findings show that intercultural collaboration is a challenge for both Chinese and Tanzanian employees. Chinese employees share a mostly positive view of their organisation, while Tanzanians tend to be more critical. Members of both groups, however, feel that intercultural collaboration could improve if members of 'the other group' made recommended changes. Despite this, both groups adhere to their perceptions of 'the other' and maintain a favourable view of the self.

Practical/managerial implications: Chinese organisations need to create opportunities for the improvement of intercultural collaboration by reflecting on the self and 'the other' in terms of understanding thought styles, experiences, knowledge, and the impact of cultural values on collaboration behaviour. As such, cultural knowledge-sharing might contribute to a sustainable long-term intercultural collaboration.

Contribution: The study contributes to filling the gap of in-depth qualitative research on perceptions of Chinese and Tanzanian intercultural collaboration between employees in the field of human resource management in Africa.

Introduction

China's impact and role in the development of countries in Africa, primarily through foreign direct investments and grants to governments, has increased in the past decade. For instance, the total value of trade between China and Africa was USD198.5 billion in 2012, increasing to USD385bn in 2015 (African Economic Outlook, 2014, p. 76).

A growing number of Chinese private and governmental organisations are investing in southern Africa. In Tanzanian contexts, this leads to a close collaboration of Chinese and Tanzanian employees (African Economic Outlook, 2014). These collaborations in Chinese organisations in Tanzania lead to intercultural communication situations and to new intercultural experiences and perceptions.

As a result of globalisation, intercultural collaboration has become extremely prevalent during the past decades and research has emphasised that employees in intercultural work situations are often challenged by intercultural collaboration (Hinds, Liu & Lyon, 2011). It has been highlighted that the potential for conflict increases in intercultural work situations (Mayer & Boness, 2011; Mayer & Louw, 2012) and that having a dynamic and contextualised view of culture can support an improved understanding of the perceptions in intercultural collaboration (Hinds et al., 2011). Culture, in this case, is viewed as a group phenomenon which is defined primarily by values, norms and basic assumptions (Rosinski, 2011) and which impacts strongly on the collaboration between members of different cultural groups (Mayer, 2011). The latest

research has shown that values differ recognisably across Chinese and sub-Saharan African cultures (Matondo, 2012), and it can be assumed that these value differences create differences in perception and challenges in intercultural collaboration.

Purpose

With little systematic empirical research and information currently available, a research void exists regarding Chinese–Tanzanian employee collaboration and employees' perceptions of this intercultural collaboration. This article aims to contribute to filling this void through qualitative in-depth research and by exploring perceptions of Chinese and Tanzanian employees working in a private Chinese information technology (IT) organisation in Dar-es-Salaam, Tanzania.

The principal aim of this research study is to explore and understand the mutual perceptions of Chinese and Tanzanian employees in intercultural collaboration in a selected Chinese organisation in Tanzania. The main research question based on this primary aim is therefore: 'How do Chinese and Tanzanian employees perceive their intercultural collaboration in a private Chinese IT organisation?'

Literature review

Contextual insights into Chinese–Tanzanian collaboration

'Africa needs a market for its products. Africa needs technology for its development. China is ready to provide all that. What is wrong with that?' (Majani, 2013, n.p.) As this quotation suggests, the relationship between China and Africa – in this case, Tanzania – is a contentious issue.

Tanzania is looking back at a long intercultural history of Chinese business and close intercultural collaboration of Chinese and Tanzanian traders and entrepreneurs reaching back to the 15th century. The first contacts between Tanzanian and Chinese people occurred approximately 100 years before the first Europeans reached the region (Curtis, 2015).

The beginning of the modern era of Chinese contributions to the region started in the 1970s with the railway having been built from 1970 to 1975 (Tanzanian-Zambia Railway Authority, 2017). According to Bräutigam (2009, p. 40), Chinese workers built the longest railway in Africa stretching from the harbour of Dar-es-Salaam to the copper mine fields of Zambia. After China awoke from its cultural revolution, it engaged into a south–south trade with African countries. China's interest was based on its idea that China itself was a developing country with a similar structure to the majority of African countries, and Chinese investors felt that they knew how to operate in African countries (Bräutigam, 2009). In Tanzania, characteristics of Chinese aid and trade became visible in the 1980s:

> In Tanzania the Chinese signed an agreement to renovate more than sixty former aid projects. Hydropower stations built earlier under Chinese aid … received complete overhauls. Chinese

officials complained mildly that it was more complicated than new construction, but they persisted. Being responsible to the end became a new slogan for aid. (Bräutigam, 2009, p. 57)

Apart from this new slogan, the Chinese strategy also included the principle of not interfering in internal affairs, but helping countries to build self-reliance (Bräutigam, 2009, p. 57).

Managing Chinese organisations in African countries through intercultural collaboration

Numerous research studies have focused on intercultural collaboration as well as on intercultural conflict management and negotiation in intercultural and international management cooperation (De Klerk & Kroon, 2007; Harris, Brewster & Sparrow, 2006; Hinds et al., 2011; Pillay, 2008; Sycara, Gelfand & Abbe, 2013). Management research in African countries and Tanzania has evolved during the past decades, focusing on challenges of intercultural collaboration (George, Khayesi & Haas, 2016; Kamoche, 2002; Kamoche, Debra, Horwitz & Muuka, 2004; Mayer, 2008, 2011). This is also true for Chinese management contexts, highlighting that Chinese organisations have recognised the importance of an interculturally competent workforce within the global economy. However, the intercultural collaboration competence of employees still needs to improve to work sustainably in international collaboration (Koehn, 2007).

Managing people in African countries requires a multifaceted knowledge of historical, socio-economic and political complexities (Jackson, 2004; Luiz, 2006). It also needs to take cultural and work values, motivation, communication and human interaction into account (King, Kruger & Pretorius, 2007). Cultural management philosophies such as Ubuntu (Luchien & Honorine, 2005) and organisational change need to be addressed (Hart, 2002).

Globalisation, socio-economic and political changes within sub-Saharan Africa have led to an increase in intercultural collaboration, international business collaboration, communication and conflict management (Van der Nest, 2004). Often, management in Africa has been perceived (at least from an outside and intercultural perspective) as a challenge with high conflict potential resulting from the administrative organisation, political instability, personal security, lack of business confidence, transparency and difficult labour relations (Humphreys & Bates, 2005).

This article focuses primarily on the exploration of perceptions on intercultural collaboration between Chinese and Tanzanian employees. In the past, intercultural collaboration has 'often been achieved through the domination of one culture by the other' (Graen, Hui & Gu, 2004, p. 225), however, this approach has been proven to be dysfunctional and inadequate. Successful, effective and long-term intercultural collaboration needs to take into account the perceptions of the collaboration of the people themselves, and it needs to take the system-level approach in terms of organisational structures into account (Graen et al., 2004). Cultural aspects also need to be considered to develop

effective intercultural collaboration (Trompenaars & Asser, 2010) and to understand how individuals think, behave and form their attitudes (Mayer, 2008; Zait & Spalanzani, 2009).

The perceptions of Chinese and Tanzanian employees working in Chinese organisations in Tanzanian contexts have hardly been considered in the context of intercultural collaboration (Mayer, 2013). Recently, research in different African countries has emphasised that in Africa–China joint ventures across 12 African countries, African partners use informal, even 'clandestine' mechanisms to manage cultural differences in order to gain knowledge (Ado, Su & Wanjiru, 2016), while other research sees a huge potential in bridging cultural differences through the philosophies of Ubuntu and Confucius (Nyambegera, Kamoche & Siebers, 2016). These authors emphasise major challenges in Chinese–African collaboration with regard to work attitudes, trust, the importance of work and what aspects of work employees place value on. Chinese enterprises have been criticised for their exploitative and abusive human resource management practices. However, it seems that cultural differences with regard to recruitment, relationship-building, authority, sanctions and incentives, reciprocity, social roles and symbolic significances seem frequently ignored (Giese, 2013). Qualitative research is needed to explore the cultural differences in-depth. Intercultural misunderstandings, which guide individual attitudes and behaviour, can cause international business failures and insensitivities in Chinese human resource management when addressing issues such as hiring, promotion, reward systems and dismissal in African contexts (Nyambegera et al., 2016). In an attempt to address some of these misunderstandings, the research at hand explores perceptions of Chinese and Tanzanian employees in a specific Chinese–African context.

Method
Research approach

This study uses a phenomenological (hermeneutic) research approach (Gummesson, 2000) while adopting an explorative and descriptive research methodology by using a social constructivist perspective (Collis & Hussey, 2003).

Research strategy

This research project focuses on a large-scale organisation operating internationally as a private Chinese organisation. It is based on the sector of IT, and its products are telecommunications equipment and networking equipment. The ownership is completely Chinese. The organisation employed approximately 160 people in the Tanzanian branch at the time this research was undertaken.

For this study, convenience and snowball sampling in the organisation was used. Altogether 16 interviewees were willing to participate voluntarily in the research project. Of these, 6 were women and 10 were men; 6 were Chinese, 9 were Tanzanian and 1 person was Zambian. Two interviewees had worked less than 1 year in the organisation, while the remaining interviewees had worked there for more than 1 year.

Research design

Data were collected by conducting semi-structured interviews and by observations made. The semi-structured interviews were conducted face-to-face and ranged from 30 mm to 90 min in length. The interviews were conducted in English, Kiswahili or Chinese (Mandarin), according to the language abilities of the interviewees. The research team consisted of one Tanzanian, one Chinese–Tanzanian and two German researchers who were able to conduct the interviews in the three languages without using external translators. All of the researchers were familiar with the Tanzanian cultural environment. The interview questions focused on the organisation, its contextual environment and organisational culture, as well as on the collaboration between Chinese and Tanzanian employees within the organisation. The notes from the observations were used to interpret the statements in the interviews.

The semi-structured interview questions were developed following an extensive literature review. Some examples of the questions are as follows:

- Please talk about your perceptions of collaboration with regard to intercultural work collaboration between Chinese and Tanzanian employees.
- How do you experience the collaboration between Chinese and Tanzanian employees within the organisation?
- What do you enjoy about working for the organisation?
- What do you experiences as challenging in the collaboration and within the organisation?

Data were transcribed verbatim and were stored according to the ethical guidelines. The data were also transferred back to the participating organisation and employees.

The analysis was based on the five-step process of content analysis described by Terre Blanche, Durrheim and Kelly (2006, pp. 322–326). The five steps of content analysis used in the data analysis process were: familiarisation and immersion, inducing themes, coding, elaboration, and finally interpretation and checking. Data generated from observation contributed to the interpretation of information and are implicitly included in the findings and interpretation of the research. Inter-validation processes among the research team members were also used (Yin, 2009, p. 45).

Qualitative research criteria (Gummesson, 2000, p. 157) were applied in the study, namely credibility, transferability, trustworthiness and confirmability (Mayer, 2011). The transparent description of this research leads to credibility, as well as to the transferability and trustworthiness of the research (Creswell, 2003).

Findings

The biographical information shows the characteristics of the interviewees in terms of their position in the organisation, their nationality and mother tongue, their age, sex and duration of work time in the organisation (Table 1).

TABLE 1: Biographical data.

Code number	Position	Nationality, mother tongue	Age in years	Sex	Tenure in organisation/months
1 h-m	Deputy managing director	Rc/Ch	35	M	36
2 h-m	Product manager	Rc/Ch	40	M	12
3 h-m	HR manager	Z/Su	35	F	7
4 h-m	Channel executive	Tz/Su	40	M	96
5 h-e	CSO department employee	Tz/Su	30	F	60
6 h-e	Pre-sales engineer	Rc/Ch	35	M	4
7 h-e	Project manager	Tz/Su	40	M	24
8 h-e	Officer	Tz/Su	30	F	12
9 h-e	Administration	Tz/Su	30	F	48
10 h-m	Product manager	Rc/Ch	35	M	24
11 h-m	Public relations manager	Rc/Ch	40	M	36
12 h-m	Director of finance	Rc/Ch	40	M	16
13 h-e	Health and safety agency manager	Tz/Su	30	F	60
14 h-m	Network solution designer	Tz/Su	35	M	24
15 h-m	Spare parts manager	Tz/Su	35	M	60
16 h-e	Administrative assistant	Tz/Su	30	F	11

Source: Mayer, C.-H., Boness, C.M., Louw, L. & Louw, M.J. (2016). Intra- and inter-group perceptions of Chinese and Tanzanian employees in intercultural cooperation. Proceedings of the 28th Annual Conference of the Southern African Institute of Management Scientists, p. 123. Retrieved August 24, 2017, from http://www.up.ac.za/media/shared/643/ZP_Files/2016/Papers/hrl18_full.zp97856.pdf
Rc, Republic of China; Ch, Chinese language; Tz, United Republic of Tanzania; Su, Swahili language; Z, Zambia; M, male; F, female.

The following section presents the findings regarding various perceptions of Tanzanian and Chinese employee collaboration.

Perceptions of Tanzanian and Chinese employees in intercultural work encounters

It was found that, when asking Chinese and Tanzanian employees about their perceptions of intercultural collaboration, the following themes arose:

- strategy
- structure and decision-making
- management styles
- employment
- qualification and training
- knowledge-sharing
- motivation and incentives
- working conditions and atmosphere
- environment community, government and trade unions.

The perceptions of Tanzanian employees

Strategy

A Tanzanian employee (14 h-m) provides a short explanation of the organisation's strategy:

> The long-term strategy I can say is to be the best ICT solution provider in the country. That is how I can summarise it. (Participant 14, Network Solution Designer, Tanzanian male, 35 years)

For the Tanzanian interviewees, the main strategic goal is clear: to become number one in the field of IT. However, most of the Tanzanian interviewees were unclear about the strategic outline of the organisation. They feel that their job descriptions are vague and that they are not included in the organisation's strategic planning.

Structure and decision-making

A Tanzanian employee (5 h-e) spoke about decisions in the organisation and how they are handled:

> Sometimes they do inform us, but sometimes they just pass the decision on. You just find out that decisions are already made, so I just have to obey. (Participant 5, CSO department employee, Tanzanian female, 30 years)

Tanzanian employees believe that, in this organisation, the bosses are 'at the top' and supervisors take care of employees at different levels; this portrays a rigid organisational structure. Tanzanian employees do not participate in decision-making. The Tanzanian employee quoted above found that decisions are most often taken without being communicated. Employees do not participate in decision-making and must obey. Other Tanzanian employees emphasised that there are no open discussions about decisions among the employees. They even think that employees are not consulted on any decision-making issues. However, Chinese management seems to follow an increasingly localised focus which they believe will improve their international operations as they grow more accustomed to their external working environment.

Management styles

A Tanzanian employee (16 h-e) working on lower management level states:

> If a Chinese comes to you, and ask for something and you tell that person then I'm not supposed to give you this … because you have to get an approval from my supervisor if you can get this thing or this item that you want. There are some stuff that you just don't give away. You have to get an approval first and then he or she shouts at you or like, 'who do you think you are?' 'Who do you think you are in this organisation?' Something like that … Yah! It happens. (Participant 16, Administrative assistant, Tanzanian female, 30 years)

This Tanzanian employee mainly perceives the Chinese as working according to formal bureaucratic rules, which are not transparent to her. She perceives a communication style of shouting and offensive behaviour, which she does not appreciate. Other Tanzanian employees see top management as being strongly focused on results rather than being people-

orientated. It is also believed that the management style combines Chinese and Western values and that these styles are interlinked. Although it is perceived that the organisation has a very autocratic management style with the main focus on work, Tanzanian employees experience some support from the organisation to its staff members, although somewhat less than desired.

Employment

The impression of this Tanzanian employee (7 h-e) shows a changing ratio between Chinese and Tanzanian employees:

> From their side they'll take advantage of, maybe bring in some more maybe whether Chinese whatever they, they bring that, to cover that position. But in, in fact it doesn't mean that we are not capable of doing that. Even sometimes even within the position we are, we are just performing like we are, we are, we are letting days to be numbered while we are looking for some better, maybe ways. (Participant 7, Project managers, Tanzanian male, 35 years)

The interviewee seems to be disappointed that positions which could be filled by Tanzanians are occupied by the Chinese workforce. Several Tanzanian employees believe that there is an unequal distribution of workers in terms of cultural origin. There is a ratio of approximately 60 Chinese to 40 Tanzanians employed in the organisation. Tanzanians expect the ratio to be equalised.

A Tanzanian employee (15 h-m) perceived the employment policy of the Chinese HR management as disempowering Tanzanians:

> You know they are not employing, they are not employing. For example, this year, last year I didn't see any person but what they do, if for example local staff leave the organisation they just bring Chinese and you just see Chinese coming, that you understand. So, they are not employing. (Participant 15, Spare parts managers, Tanzanian male, 35 years)

This employee argued against the objective figures of employment in the organisation. He only sees Chinese coming to fill the positions which he might have assumed were to be filled by Tanzanian workers. Obviously, a high fluctuation of employees is also observed by other Tanzanian employees. This constant movement results in less room for interpersonal relations, leading to the opinion that HR policies are not clear. Additionally, Chinese 'foreigners' are given more learning opportunities than Tanzanians.

Qualification and training

A Tanzanian employee (13 h-e) offered quite a positive statement about the issue of qualification and training:

> … most of them is online training. Yes we have online training and before I came here I had training and then after I trained I had an exam and then after the exam you get a score, yes it is something like that we have. (Participant 13, Health and safety agent manager, Tanzanian female, 30 years)

While the organisation has a good training system in which employees are trained to deal with new technologies, it addresses qualification gaps by providing on-the-job training. However, the majority of Tanzanian employees judge the level of qualification in the organisation as low. Employees are not well trained and lack basic knowledge. Tanzanian employees feel that the online training platform is helpful, but that the online training, skills and the expertise gained are limited. As a result, the organisation prefers to employ Chinese employees at top-level management who are, according to Chinese perception, more skilled than Tanzanian employees.

Knowledge-sharing

In terms of knowledge-sharing, a Tanzanian employee (15 h-m) commented:

> Support is there, but not one hundred per cent …You know here in 'Go Away' we have learnt many things. You can be given a job, someone can come and tell you: 'do this' but I have never done it. I tell him, 'I don't know; no just learn from others, ask your friends'. My supervisors don't have time to teach me and they say 'here nobody can teach you, you have to teach yourself. If you don't know then find the one who can'. So we found that we don't have much support from Chinese. (Participant 15, Spare parts managers, Tanzanian male, 35 years)

Tanzanian employees experience a lack of knowledge-sharing within the organisation. Tanzanian interviewees find that the Chinese seem to segregate themselves and do not particularly interact with Tanzanian employees, causing an information barrier and less transparency. Because there are no new employment or career opportunities available, this tends to put a limit on knowledge-sharing as there is hardly any motivation to share knowledge. Supervisors do not teach employees, and the employees end up seeking knowledge from external sources around the country and beyond.

Motivation and incentives

Regarding the system of rewards, a Tanzanian employee (3 h-m) stated:

> We also have incentives like if you are working on a particular project and you deliver it successfully you are given an incentive for working on that project and that is like as and when the project matures; whereas with the bonuses and annual thing the incentive award comes out when the project matures. Yeah so there is all of those freebies or all of those goodies that are thrown into the whole compensation and benefit package that tend to be quite attractive. So with those incentives I think people are driven to work harder because they know if I deliver on X I am going to get said; so it is pure and simple. (Participant 3, HR managers, Zambian female, 35 years)

This Tanzanian employee finds the reward system attractive, because it could encourage the workers to work harder. However, the opinions of Tanzanians on this topic vary greatly. Regarding rewards and benefits, some Tanzanians think that rewards should be available equally to all employees. There is induction training which is useful in that employees are trained timeously with new technologies. Education and numerous training platforms exist, from on-the-job (face-to-face) training to online training.

Other Tanzanians stated that the reward system in this organisation is performance-based, where the employer and employee agree on certain targets to be met within a given time frame. Reviews are then done at the end of that period, after which bonuses and remuneration elements are worked out. The Tanzanian view is that, although this may be productive for the organisation, it also may be used as a 'trick' to control wages. Tanzanians prefer a fixed salary for permanent workers, with a bonus-related scheme for exceptional work performance.

Working conditions and atmosphere

A Tanzanian employee (5 h-m) noted that the working conditions are often affected by the language barriers:

> You need to be patient because Chinese people, they panic. It is because sometimes, they have to understand English, and they understand Chinese only. So if you are speaking and they don't know what you are speaking about, just be patient. [*laughter*]. (Participant 5, CSO department employee, Tanzanian female, 30 years)

In addition to language problems which may affect communication fundamentally, other difficult aspects of the work environment were also mentioned by Tanzanian employees. Some Tanzanians place particularly high value on interpersonal relations. However, the atmosphere in this private Chinese organisation allows very little room for interpersonal relations; Chinese employees seem to be more work-orientated and less relations-based. In the organisation, it is evident that there is a general norm of Chinese employees to display in-group behaviour and have less personal interaction with local employees. Tanzanians attribute this to the high mobility and turnover rates of Chinese employees, preventing the establishment of strong relationships.

Language barriers with regard to documents are also perceived as impeding the development of sound interpersonal relations. As a Tanzanian employee (16 h-m) observed:

> … we all understand each other. But sometimes (sigh) sometimes you might be given a document to sign, which is written in Chinese. So, you don't know what is there but you're just told, 'Sign!' (Participant 16, Administrative assistant, Tanzanian female, 30 years)

Some Tanzanian employees believe that there is an overemphasis on work as the Chinese employees often 'overwork'. Chinese tend to expect more from Tanzanians than the average job description entails. Tanzanians are aware of high cultural barriers that exist between the cultures. Thus, integration within the organisation becomes difficult and requires a great deal of effort. It is observed that supervisors do not teach local Tanzanian employees and the employees often end up seeking knowledge from external sources around the country and beyond. This results in a counterproductive work environment, which is characterised by a lack of information transparency.

Environment community, government and trade unions

A Tanzanian employee (5 h-e) was convinced of the benefits of hardworking Chinese employees in Africa:

> They are very hardworking people. When they mean to do something, finish something, they mean it. They work day and night sometimes just to make sure that thing is done. Or if there are other projects we need to win, they really work hard. They make Africa go up in terms of technology issues. We are going high in technology because of them. (Participant 5, CSO department employee, Tanzanian female, 30 years)

This Tanzanian employee sees his Chinese counterparts as highly competitive in their working ethics and behaviour. With this in mind, Africa as a continent would benefit technologically from Chinese–Tanzanian collaboration.

Other Tanzanian employees appreciate the supporting of schools and various projects and initiatives in the community by the Chinese. The Chinese also interact with the local businesses as they purchase goods and services from other local firms. The presence of the Chinese is seen as beneficial to the community, as evidenced in the increase in employment opportunities for local businesses. Tanzanians also feel that the Chinese play an important role in helping local entrepreneurs gain more experience in their field of work.

The perceptions of Chinese employees

Strategy

A Chinese employee (1 h-m) underlined the organisation's strategy with following words:

> So our mission is wanting to enrich the communication between the people we want to, how do you say, to reduce the gap between the people especially for Africa. I am talking about our mission in Africa obvious especially for our developers in Europe and America; they have already finished the job but for Africa we want to bring the good solution with a reasonable price to the people here. (Participant 1, Deputy managing director, Chinese male, 35 years)

This leading Chinese employee obviously saw the organisation's strategy as pan-African: enriching communication between people at a reasonable price. The majority of Chinese employees understood the organisation's strategy as forming connectivity and solid relationships in Africa. The main focus in the organisation, as highlighted by Chinese employees, was on achieving a high level of teamwork, efficiency and a sense of responsibility. Support is provided to everyone, and avoidance of risk is emphasised. Chinese employees believed that through the implementation of this strategy, the organisation could become a key driver in the industry, as well as being able to introduce the best IT solutions to the customer.

Structure and decision-making

The structure of the organisation was described by a Chinese top manager (12 h-m):

Yes, in this organisation we have the MD, Managing Director and we have Director of Finance, me, and Director and technical delivery and there is directors for key accounts and we have the main customers system like Airtel and … it's the business directors, one MD and me Finance Director and Technical and Service and Delivery Director and four directors for each different business and we all report to the MD all of us. I think when we have a business we have marketing strategy and we have our principles and some projects for maybe senior level should obey our mother organisation from China and the MD has a certain level of authority a certain amount but the amount is bigger to high levels and regional and headquarters. (Participant 12, Director of finance, Chinese male, 16 years)

The interviewee explained the strict hierarchies regarding reporting structures to the Chinese headquarters. Regarding decision-making and participation, other Chinese interviewees mentioned centralised management through headquarters and strict decision-making. There is also an awareness of the organisation's hierarchical, bureaucratic and/or paternalistic structure, together with a strong sense of obedience to headquarters. However, some Chinese believed that there is a sense of regional independence and that Chinese agents should be employed. It was highlighted that the organisation ensures that all employees have highly compatible values and are aware of the main customer systems.

Management styles

A Chinese manager outlined two different culture styles of management for communicating with subordinates (12 h-m):

I think it is some way, you know we Chinese sometimes if I didn't do work MD he can shout at me but we seldom shout at the local staff, you know for me I am ok, it's our way of making us work better but if we do the same thing to local staff they may think something different but to us there is no problem. What I mean is that something of ways of communication between our supervisor and management, he might be using a more straight and tough way and press me to do better, but with local staff we think more about their culture and language and which local staff we accept.

The first is being said is that our management first level we should obey the laws and another is that between the suggestion of our staff between the local and the Chinese and the third thing is that the organisation's headquarters give us the regulation they say the way should be the balances between the suggestions of the local staff and regulation of headquarters, I think everything local wants first and then the second and third the management will balance.

We are more open, our origin for our organisation is a culture to work hard and work more, but to the local we will give them stuff if you want the balances between work and life, you want more leisure time between your family, your family issues we give you a choice but you lose opportunities to be promoted to higher levels because it now depends on you. (Participant 12, Director of finance, Chinese male, 16 years)

The Chinese interviewee shed some light on the communication style of top management in terms of adopting an Eastern (as opposed to Western) management style when

communicating with fellow Chinese. However, when relating to members of the Tanzanian culture, the communication changes. According to the interviewee quoted above, the management style encompasses aspects of both Chinese and Tanzanian culture amalgamated into one complex management style.

It seems to be preferable for Chinese management to apply a centralised approach to their Chinese-based headquarter operations, and a decentralised approach to management and supervisory roles, in which the objectives and goals set by higher management levels in other regions are carried out. However, some Chinese think that this systematic approach could create uncertainty in management because managerial roles may vary greatly depending on the subjectivity of the working environments.

With a high standard of discipline in compliance with the Chinese culture, managers have set goals to work towards as performance-based indicators are adopted for incentive purposes. A high level of cultural respect expands further into their international operations. Subsequently the Chinese will adopt separate management systems for their local and Chinese employees in order to accommodate the local cultural aspects of their working environments. Other Chinese employees stated that the overall managerial methods of the private Chinese organisation are compatible with the Tanzanian environment as the organisation uses an international style of management that is intercultural.

Employment

A top Chinese employee (1 h-m) commented:

If you think about the total amount, it is sixty-five per cent local. Almost all the local people are in the support team. In the sales team, we have three or four people who local staff from here in Tanzania. So in total it is sixty-five per cent … Now most of the Chinese people are working in sales, and most of the Chinese people stay in the sales team. It is because, for telecommunication, you need education. Unfortunately, the ICT people in Tanzania still need some training for it. (Participant 1, Deputy managing director, Chinese male, 35 years)

The interviewee connects a lack of local employment in the sales team with a lack of education. With regard to the ratio of Chinese to Tanzanian employees in the organisation, all interviewed employees agreed that there were more local Tanzanian than Chinese employees, although the actual numbers given differed slightly between interviewees. Overall, the employees agreed that there was an uneven spread of employees in favour of locals.

A Chinese employee (1 h-m) put the issue of employment opportunities like this:

In our organisation, the employment depends on our business. If the business is going good, we hire more people. In 2007, our business hire many local people from the southern side of Tanzania. We had huge projects and one of those project was in Zambia. Now we have only about a hundred and twenty projects. So the new positions really depend on the business. If

we find loss in this project, we will need a lot of people to hire. So if we have a new customer coming out, we need a new accounting manager. So that is how new positions come in the organisation. (Participant 1, Deputy managing director, Chinese, male, 35 years)

Obviously, employment opportunities are tightly connected to the volatile business situation in the respective countries, focusing on the demand side of business. Other Chinese employees were convinced that there are broad training opportunities available to all employees and underline the supply side; these opportunities were understood to be extremely skill-based which would grow the organisation into an expansionary position.

Qualification and training

A Chinese employee (6 h-m) observed:

Let me think, there are two kinds of support I get. Firstly, I get enough materials and resources to do my research and a local internet network where I can search the organisation's internet website to get as many things as I need to carry on with the research. Secondly, I get some training from this research project and when I am doing business, I will have people who have taught me and will eventually support my business. (Participant 6, Pre-sales engineer, Chinese male, 35 years)

This Chinese employee showed his full satisfaction with support and training received from the organisation. In order to increase the levels of qualification, Chinese and Tanzanian employees were offered the opportunity to register for a master's degree in computer science and engineering. The beneficiaries of this offer of qualification and training are most likely to be the less-skilled labour force of Tanzania.

Knowledge-sharing

A Chinese employee (11 h-m) discussed knowledge-sharing in terms of using the in-house e-database which is accessible to everyone:

We have a very open e-learning platform we can call it an office system where we have e-learning platform which carries all types of knowledge and we have a system … and you can find any information you want which is related to your work. This is [our organisation] and what we did all the information from different countries and project experience or specific technology training material everything we share it in one database and one platform. Any staff can use their ID and just log in the office platform … Chinese and local staff are very open in communication and they work together very closely. (Participant 11, Public relations manager, Chinese male, 40 years)

According to some other Chinese interviewees, Tanzanians do not participate in knowledge-sharing. They felt that the organisation is not cross-cultural because of this; however, other interviewees believed that there are good cultural exchanges in the organisation. Information transparency and sharing was also encouraged through weekly meetings with the employees. Chinese employees were convinced that they strive to help local entrepreneurs to gain experience and knowledge through exchange of ideas.

Motivation and incentives

In the words of a Chinese employee (10 h-m), salaries and promotion are the main triggers for a highly motivated commitment at work:

Motivation of course by increasing the salaries and higher positions for every employee in the organisation, they have to pass, from engineer to project manager and to the FR they have fulfilment responsibility and also maybe to the representative of the office and even to the region office. So they can go and follow the schedule and pass the exam then they can get a promotion. (Participant 10, Product manager, Chinese male, 35 years)

The organisation offers broad training opportunities with governmental support which ensures that sufficient training of new employees occurs, all leading to increased monetary and promotional rewards and performance-related pay, as confirmed by numerous Chinese interviewees. All motivational systems, including the efficiency of management, contribute to the working conditions and atmosphere of the organisation. Chinese interviewees also described the good motivational structures, which are in place such as performance-related pay (bonuses), needs-based incentives and monetary and promotional rewards. In addition, they noted that employees are given 28 days of annual leave.

Working conditions and atmosphere

A Chinese employee (2 h-m) explained how he socialises during work time and after work:

I stay most of the time with Chinese people. Work time, I spend my work time with the locals and Chinese people. And in my spent time, I stay with my Chinese colleagues, because we are new in this area. Most of us are single even though we are married, but our families are in China, but we stay together. (Participant 2, Product manager, Chinese male, 40 years)

This employee reflects on his family ties and the loss of his family members owing to his appointment to work in Tanzania. The organisation's working conditions and environment are described by some Chinese interviewees as being like a family, which creates a pleasant atmosphere with a strong cross-cultural aspect. Tanzanian employees also appear to like working in the organisation.

Environment, community, government and trade unions

A Chinese employee (6 h-e) stated:

Two months ago, Mr Chi the founder came to Tanzania and we came Tanzania's private organisation. There is also a lot of companies that come from China and move to Tanzania. Therefore, I think China and Tanzania is developing a very good relationship and also there are a lot of business opportunities here in Tanzania, and it is for the good of two countries. And it is good for me to work here. (Participant 6, Pre-sales manager, Chinese male, 35 years)

Likewise, other Chinese employees believe that China and Tanzania have a very good international partnership. The Chinese see many opportunities because Tanzania's foreign

policy is very open to foreigners and the country provides a safe environment for its visitors. As a result, there are many Chinese companies in Tanzania, and it is seen as a place with many business opportunities. It was emphasised that the relationship with the Tanzanian government is good, as they have had a history of strong, positive relations. Employees mentioned that only 30 years ago, China was almost at the same level of development as Tanzania. Therefore, the Chinese find such an environment familiar. Currently, the Chinese perceive only infrastructural problems in Tanzania in that the country's technology is seen as inferior to China's. In turn this leads to poor networking within the country. There were no clear views expressed by Chinese interviewees on the existence and function of Tanzanian trade unions, or how unions might affect the work in the organisation.

The Chinese organisation has created 200 local jobs and donated 3000 sports uniforms to schools in the community; corporate social responsibility is contributing to a sustainable environment. However, widespread corruption could impact on Chinese activities in Tanzania.

The Chinese interviewees observed that Chinese people are not aware of many issues affecting Africa, especially such factors as disease and war. However, these difficulties can be outweighed by the beauty of many African locations such as Lake Victoria and Zanzibar.

How could perceptions and conflicting intercultural collaboration be improved?

Both Tanzanian and Chinese employees in the Chinese organisation shared ideas and opinions regarding ways in which the conflicting intercultural collaboration could improve.

Tanzanian ideas for future collaboration with the Chinese included suggestions that Chinese employees should improve their knowledge regarding intercultural lifestyles:

- use English and Swahili language to make friends
- collect information about Tanzanian history of the last 100 years
- know Tanzanian lifestyle, tribal culture, dressing and food habits
- respect Tanzanians
- recognise that most Tanzanians believe in God
- take care of nature.

In the perception of the Chinese employees, Tanzanians should learn to:

- understand Chinese culture, basic language and history
- acknowledge that Chinese feel pressure
- notice how Chinese save their salaries
- accept that Chinese do not believe in God, have no churches
- appreciate that Chinese are helpful
- strive for sound planning, goal achievement, efficiency
- keep to deadlines

- follow the truth and be honest
- respect Han culture's principles: fast, hardworking, high technology, work for 16 h a day
- see 'Chinese culture as a big ball that spins and absorbs from all other cultures, mixing them with Chinese culture until it is like one Chinese culture'.

Interestingly, both, Tanzanian and Chinese employees provided future-directed ideas about what members of the 'other' group of employees could do to increase positive and constructive intercultural collaboration. However, neither group made reference to what they could themselves do to improve intercultural collaboration. All participants felt that their reference group was behaving in the correct manner.

Ethical considerations

The research study followed clearly defined research ethics. Informed consent was provided in writing by the organisation, as well as orally by all the voluntarily participating interviewees. Participants were assured of research ethics, including anonymity, confidentiality and the freedom to withdraw at any time during the research process. Ethical approval for the research was provided by Rhodes University in Grahamstown, South Africa.

Discussion

Findings support the view of Kikwete (Majani, 2013) that Chinese and Tanzanian employees see their collaboration as a mutual and beneficial business collaboration which dates back in the history (as described in Curtis, 2015) and is built on strong intercultural interaction within the south–south trading collaboration (see Bräutigam, 2009). However, both Chinese and Tanzanian employees see the collaboration as challenging to a certain degree (as emphasised in Bräutigam, 2009). The findings of the current study support Bräutigam's viewpoint (2009) that Chinese employees have a certain understanding of Tanzanian employees and of the structures and challenges they experience in terms of intercultural collaboration, while aiming to build self-reliance (Bräutigam, 2009).

The findings show that managing people in African countries requires multifaceted knowledge (Jackson, 2004; Luiz, 2006) regarding cultural and value concepts of work, (King et al., 2007), references to Tanzanian philosophies of management such as Ubuntu (Luchien & Honorine, 2005), as well as the understanding of recent changes at different societal and organisational levels (Hart, 2002). Culture-specific understanding is needed to cooperate effectively and to manage challenges around administrative organisation, political instability, personal security, lack of business confidence, transparency and difficult labour relations, as described by Humphreys and Bates (2005).

Findings of our study support findings of previous research and highlight that challenges occur in intercultural collaboration regarding strategy, structure and decision-

making, management styles, ratio of Chinese to Tanzanian employees, qualification and training, employment opportunities, knowledge-sharing, motivation and incentives, working conditions and atmosphere, as well as challenges in terms of the environment, the community, government and trade unions. This study also shows that Tanzanian employees struggle to gain knowledge from the Chinese employees (as noted in Ado et al., 2016).

The research emphasises that an empathetic approach in intercultural collaboration is needed from all parties on a micro level, as well as on a systemic organisational management level (Graen et al., 2004) to ensure successful and effective collaboration in which all parties act on an equal footing (Graen et al., 2004). This study shows further that intercultural collaboration is influenced by the national culture surrounding the organisation, by the organisational culture itself and by the perceptions of individuals acting within the systems (Trompenaars & Asser, 2010).

In particular, the perceptions of Chinese and Tanzanian employees on how the intercultural collaboration can be improved shows that participants in this research are influenced by their cultural background in terms of their cognition, their attitudes and their behaviour and actions (see also Mayer, 2008; Zait & Spalanzani, 2009). Participants show solidarity with employees who belong to their own cultural group (Rosinski, 2011), while expecting members of the other cultural group to move towards improving the intercultural collaboration and relationships. This shows that intercultural collaboration within the organisation can still be improved, towards a more equal and understanding work partnership. As suggested in previous research, African and Chinese philosophies could support management practices and bridge cultural differences (Nyambegera et al., 2016). This is supported by the current findings, in which members of both groups suggest learning about the other group's philosophies to broaden perceptions of 'the other'.

This study finally highlights the need for more research with regard to Chinese–Tanzanian collaborations and thereby supports the conclusions of Mayer (2013) and Mayer and Louw (2011).

Limitations

This research study is limited to a single case study and only takes into account the 16 interviewees who agreed to participate in the project voluntarily. The study is, therefore, not generalisable in quantitative terms, but contributes to an increase of qualitative, in-depth knowledge on intercultural work relationships and perceptions.

Implications for theory and practice

The findings show that intercultural collaboration is a challenge for both Chinese and Tanzanian employees in the selected private Chinese organisation. Referring to the main research aim, it was found that Chinese employees share a mostly positive view of their organisation, while Tanzanians are generally more critical of the organisation.

Challenging intercultural collaboration is perceived in the contexts of strategy, structure and decision-making, management styles, employment, qualification and training, knowledge-sharing, motivation and incentives, working conditions and atmosphere, as well as the environment, the community, government and trade unions. These areas of perceived cultural differences and challenges provide in-depth information and at the same can be regarded as guidelines for theoretical and practical implications.

Future human resource management research should, if possible, focus on intercultural collaboration by using a positive psychology or positive organisational perspective, focusing on what works best in Chinese–Tanzanian collaboration in different organisational contexts and industry sectors. The best approach would be to use mixed method studies for further investigation, taking intercultural collaboration on all levels into account.

On a practical level, employees in Chinese organisations should be trained in the basics of intercultural collaboration to improve the understanding of the self and the other within the organisation, to reflect on stereotypes and prejudices and to improve the understanding of thought styles, experience, knowledge and basic cultural values and concepts. The human resource officer within the organisation should make use of cultural diversity programmes in the workplace to enhance mutual cultural awareness and understanding among employees. Furthermore, Chinese organisations could be more open to making use of intercultural training with external facilitators and consultancy to assist changing the perceptions of employees constructively and build effective and sustainable intercultural collaborations within the organisation. The perceptions of the employees and their practical skills and abilities to deal with intercultural challenges and collaboration constructively, could also be achieved through Organisational Development Interventions, such as team building exercises, quality circles and leadership consultancy.

The implementation of interventions, training and programmes in opening up the organisational culture can be achieved by using both bottom-up and top-down approaches, supported by the Chinese leadership of the organisation. Chinese leaders need to increase their awareness in the context of intercultural collaboration and implement strategies which are based on an intercultural collaboration. Besides enhancing intercultural collaboration through human resources management, strategic and systemic management practices also need to be used to create structures of equal opportunities, embracing diversity. These practical practices might impact positively on the working conditions and atmosphere, qualification and training, knowledge-sharing and motivation of employees.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

C-H.M. and C.M.B. conducted the field research and analysed the data. All three authors discussed and interpreted the findings and wrote up the research article. L.L. is the leader of the overall project on Chinese organisations in sub-Saharan Africa: New dynamics, new insights.

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Talent measurement: A holistic model and routes forward

Author:
Gregory J. Lee[1] ●

Affiliation:
[1]Wits Business School,
University of the
Witwatersrand,
South Africa

Corresponding author:
Gregory Lee,
Gregory.Lee@wits.ac.za

Orientation: Talent measurement is a critical input to talent management (TM). Involving the application of measurement methodologies in order to determine the current and longer-term potential, competencies and contribution of employees and their roles, talent measurement is a growing field of interest in human resources.

Research purpose: This article reviews and integrates the practice of talent measurement, including developing a model of talent measurement, rooting the practice in theory and suggesting several relatively unexplored aspects of talent measurement that may have potential for improvement or controversy.

Motivation for the study: Talent measurement has not been adequately discussed and critiqued.

Research approach/design and method: A theory review and development approach is taken in this article.

Main findings: A holistic model for talent measurement is presented, including elements that have not received much prior attention such as theoretical foundations, the practicalities of including a role element, the advisability of using talent pools, the question of whether talent measures or status should be revealed to employees, the integration of talent pools with diversity or transformation imperatives, and others.

Practical/managerial implications: Managers who employ TM should benefit from this review and set of challenges regarding the practice of talent measurement.

Contribution/value-add: Although TM has been extensively discussed, the specific measurement options involved have been less well examined. Development of a holistic model and identification of outstanding controversies within it provide value to practitioners and to the evolution of TM.

Introduction

The notions of talent and talent management (TM) have become prevalent thrusts within modern human capital management. Talent management generally requires organisations to employ formalised talent measurement methodologies, which can be defined as the application of measurement methodologies in order to determine the current and longer-term potential, competencies and contribution of employees (Boudreau & Ramstad, 2005a, 2005b; Nijs, Gallardo-Gallardo, Dries, & Sels, 2014). Such measurement exercises can become critical inputs to TM, as evaluation of individuals or identification of appropriate segments of the workforce guides the decisions required in such programmes.

Talent measurement is a growing field of interest in the human resources field, given its importance to critical input to TM. However, little systematic writing or empirical research exists on talent measurement. Specifically, the practice has not been rooted in management theory, nor has it been seen or modelled as a whole system, and several areas of uncertainty remain. This article discusses the practice of talent measurement in general and develops a comprehensive model of talent measurement that is capable of acting as a guide for practitioners as well as a theory development template. This model is a unique contribution and contains within it several substantive contributions as well, such as a discussion of the theoretical foundations of talent measurement (which has been lacking) as well as discussions on many underdeveloped possibilities such as role and team foci, systematic methodological options and integration of talent measurement with other imperatives such as transformation.

A review of talent concepts

This section defines key terms, discusses talent measurement in broad terms, locates the practice of talent measurement within a theoretical framework and reviews the nine-box grid as an example.

Defining talent and talent management

It is helpful to begin with some related definitions to clarify key concepts. For the purpose of this article, the following definitions will apply.

Defining talent

Talent has become a particularly fluid and contested concept (e.g. Gallardo-Gallardo, Dries, & González-Cruz, 2013; Iles, Chuai, & Preece, 2010; Lewis & Heckman, 2006; Tansley, 2011). Ultimately this article will employ the wording of Nijs et al. (2014), which may provide the most systematically useful and comprehensive definition:

> Talent refers to systematically developed innate abilities of individuals that are deployed in activities they like, find important, and in which they want to invest energy. It enables individuals to perform excellently in one or more domains of human functioning, operationalized as performing better than other individuals of the same age or experience, or as performing consistently at their personal best'. (p. 182)

Although there are many elements of talent, practically, the concept is treated on a continuum. On one extreme, the exclusive approach considers talent as one or more elite subsets ('talent pools') of employees whose combination of human capital, attitudinal elements (such as engagement) and behaviour entails a high potential of current or future value and productivity to an organisation, in the context of both the individual's role, identity and profession and the organisation's specific requirements (CIPD, 2009; Iles et al., 2010). On the other extreme, an 'inclusive' approach considers all employees as talent (notably based on the notion that it is systems and interactions of people that create real long-term sustainable competitiveness, see, for instance, Iles, 2008; Iles & Preece, 2006; Swailes, Downes, & Orr, 2014). A hybrid approach seems to be to segment all employees into talent pools, with some pools being identified as more critical or specialised but with a general ethos of good human resource management (HRM) applied to all (e.g. Boudreau, 2013; Ulrich & Smallwood, 2012).

The definition and practical treatment of talent will fundamentally affect both measurement, as discussed later, and management. In all cases, however, it is a commonly held belief in modern day HRM that talent forms a core sustained competitive advantage for firms.

Defining talent management

Talent management then refers to:

> […] the identification, development, engagement/retention and deployment of those employees who are particularly valuable to an organization – either in view of their 'high potential' for the future or because they are fulfilling business/operation-critical roles. (Iles, 2008: 215; CIPD, 2016)

and similarly (Collings & Mellahi, 2009):

> […] activities and processes that involve the systematic identification of key positions which differentially contribute to

the organisation's sustainable competitive advantage, the development of a talent pool of high potential and high-performing incumbents to fill these roles, and the development of a differentiated architecture to facilitate filling these positions with competent incumbents and to ensure their continued commitment to the organisation. (p. 305)

Talent management therefore entails targeted human resource policies designed to increase and improve the talent pool. Within the exclusive view of talent, a talent pool is often first identified through talent measurement, as discussed next, and specific HRM interventions targeted at them, such as enhanced learning opportunities, retention bonuses and the like (Iles et al., 2010). Within the inclusive approach, the task becomes either to identify each individual's current capabilities and opportunities for growth and maximise these or to optimise the social capital inherent within organisational structures and systems that over time produces and nurtures talent, with organisational culture and leadership being core examples (Iles et al., 2010).

It is within the context and requirements of TM that talent measurement has its place as an analytical methodology, as discussed next.

An overview and model of talent measurement

Having defined talent and TM, this section overviews the use and practice of talent measurement.

Talent measurement is defined broadly here as *the practice of applying specific measurement methodologies to employees in order to determine their potential current and longer-term competencies and contribution to the organisation, for the purposes of facilitating talent management.*

Despite the fact that talent measurement has implicitly or explicitly always been a part of TM, little systematic writing exists to develop the measurement itself as a focus and field. Indeed, the measurement part of TM has arisen unevenly, mostly from practice exemplars like the General Electric nine-box grid, which will be discussed briefly later. Theoretical foundations and drivers have not been developed, and aside from recent contributions (notably Nijs et al., 2014) little systematic writing exists on the concept.

Accordingly, this article seeks to add to the literature reviewing and conceptualising talent measurement. It does so firstly by presenting a conceptual framework for the elements involved in a talent measurement and execution system, as shown in Figure 1.

As can be seen, the model suggested in Figure 1 arises from certain theoretically derived drivers, something that has lacked systematic discussion in TM literature. Then, measurement design elements must be chosen, with a variety of options available. A point discussed below is that not all of these are always considered in contemporary

Theoretical foundations & drivers		Adverse selection challenges	Resource assessment requirements	
Measurement design elements	**Talent foci** • Individuals • Roles? • Teams? • Other?	**Talent criteria** • *Individuals*: Performance, potential, other? • *Roles*: Value, uniqueness, complexity/scarcity? • *Teams*: Team functioning?	**Measurement choices** • Scaling of measures • Time series vs cross-sectional • Qualitative/quantitative mix • Data providers • Combinatorial approach	
Final measurement choices	**Exclusive talent pools**	**Hybrid approach (everyone seen as talent in some way, specific pools managed differently)**	**Inclusive talent approach**	
Additional choices	**To reveal talent status?** Controversial	**Integration with diversity/transformation agendas?** Difficult	**Integrate individual with role focus?** Good impact	

Additional choices		Exclusive talent pools	Hybrid approach	Inclusive talent approach
	To reveal talent status?	Controversial	Less controversial	Not an issue
	Integration with diversity/transformation agendas?	Difficult	Somewhat difficult	Not an issue
	Integrate individual with role focus?	Good impact	Maximal impact	Requires specific differential assessments

Talent management	• Simple in-out scoring only facilitates retention, will not provide individual information for development or other TM processes. • More nuanced measurement supports other TM processes, notably potential measurement. • Addition of role focus facilitates recruitment & succession/mobility processes. • Budgetary impact: exclusive = high per-person spending, hybrid usually entails uneven spending, inclusive = low per person spending and may not really entail TM.

FIGURE 1: A framework of the talent measurement process and elements.

systems. Final system design can broadly be classified as exclusive, hybrid or inclusive. Further issues could be explored, which again are often not considered adequately and therefore form areas of controversy or opportunity. This article adds some unique perspectives on these additional areas. Finally, the system chosen must facilitate TM, which according to this article is not always optimally considered. The article proceeds by considering each of the areas shown in Figure 1.

Element 1: Theoretical foundations of talent measurement

As noted in the Introduction, although TM has to some extent been given theoretical foundations, the practice of talent measurement specifically has yet to be rooted in management theory. This section suggests some theoretical foundations.

As for TM, resource-based theory as applied within strategic human resource theory provides one theoretical basis for talent measurement. The broadly defined resource-based view (Barney, 1991; Wernerfelt, 1984) proposes that firms gain and sustain competitive advantage through the cultivation of resources that are valuable, rare and hard to imitate or substitute. Arguments have been made for both human capital itself and systems of HRM to fulfil these conditions for competitive resources (Barney & Wright, 1998; Boxall, 1996; Lado & Wilson, 1994; Wright, Dunford, & Snell, 2001; Wright, McMahan, & McWilliams, 1994). These contributions argue convincingly that features of human capital and HRM systems such as the fundamental

value of human competence, complex and causally ambiguous social and team systems, the influence of firm history and culture on the use of human capital, the role of organisational learning and other elements create the potential for sustained competitive advantage. However, an important set of evolutions in the application of resource-based theory, notably the 'HR architecture' view, moved beyond a simplistic perspective of equal contribution across a firm's human capital (Kang, Morris, & Snell, 2007; Lepak & Snell, 1999, 2002; Liu, Lepak, Takeuchi, & Sims, 2003; Martin, 2009; Palthe & Kossek, 2003; also see Kulkarni & Ramamoorthy, 2005). This type of view argues for differential value and uniqueness between human capital resource types and calls, therefore, for concomitant differences in employment mode, relationship and HR configurations. It is within this framework that talent measurement has its first theoretical location, as a critical tool in the organisation's ability to locate value and uniqueness.

Furthermore, adverse selection theory provides a second theoretical foundation for the practice of talent measurement (Akerlof, 1976; Wright & McMahan, 1992). This branch of information economics focuses on the transactional problems of asymmetric information, which in the context of employment relationships refers to employers' challenges of accurately knowing and acting on the productive potential of employees, applicants, or hiring prospects. In the context of a current employee pool, one particular challenge includes accurately assessing employees for future contribution, especially where promotion or alternate future roles is a key consideration. In such longer-term considerations, current

employee performance or expressed desire for advancement may not be sufficient or desirable as a sole indicator – for instance, the 'rat race' conceptions of adverse selection (e.g. Akerlof, 1976; Landers, Rebitzer, & Taylor, 1996) suggest theoretically and empirically that promotion races based exclusively on output may lead to inefficiently high levels of competition. However, the more that a current employer firm can screen its employees for hard-to-observe future potential and capability, the more that it potentially gains advantages over labour market competitors and is able to retain and utilise such talent (e.g. Greenwald, 1986; Kahn, 2013). In addition, attraction-selection-attrition theory (Schneider, 1987) may be used to suggest that policies such as talent assessment criteria (e.g. definitions of what the firm sees talent in an exclusionary context and methodologies for assessing it) may act as powerful signals (King, 2016), enabling not only systematic recruitment and selection of such individuals over time but also retention of such individuals and turnover of individuals who fit such 'moulds' to a lesser extent. Individuals with less talent 'fit' are thereby not only systematically weeded out of the workforce, but may even self-select out of the application stage to the mutual benefit of both the individual and the firm, given that poor person–organisation fit is generally an undesirable outcome (Kristof-Brown, Zimmerman, & Johnson, 2005). Screening, signalling and self-selection are ultimately seen as solutions for the adverse selection problem and may be facilitated by talent measurement systems.

Element 2: Choices of measurement design elements

As noted in Figure 1, several design elements can be considered in a talent measurement system, including the measurement foci, criteria and methodological elements.

Measurement foci

As noted in Figure 1, a fundamental set of methodological choices involves the foci of analysis. A primary focus on the *individual* almost always accords with the core definition of talent and focus of TM and would seem to be a given staple for any TM programme. However, nascent literature may suggest additional foci that are certainly not common to contemporary TM practice but that may add enormous value. This article will briefly discuss *roles* and *teams* as two options.

Explicitly including a role focus in measurement

A point that has often been made in talent and TM definitions but that has not fully penetrated measurement practices is that the *role* currently fulfilled by individuals may also impact their treatment in TM, or in fact that the role may be the foremost issue of concern (Boudreau & Ramstad, 2005b; Collings & Mellahi, 2009; Huselid, Beatty, & Becker, 2005; Iles et al., 2010; Martin, 2009; Minbaeva & Collings, 2013).

This point has been surfaced explicitly by Huselid et al. (2005), who argue convincingly that organisations should first identify segments of roles (in their conception, these would be 'A', 'B' and 'C' roles hierarchically defined by importance), and then assess and optimise individual and resource allocations between these roles, favouring critical roles, as well as prioritise acquisition for vacancies in critical roles, a position echoed and expanded by others (Boudreau & Ramstad, 2005b; Collings & Mellahi, 2009). Similarly, Iles et al. (2010) distinguish four types of TM by combinations of exclusive/inclusive and position/ person foci, therefore explicitly incorporating the role focus. Similar sentiments are implicit elsewhere. For instance, in the definition of TM explored earlier, TM was extended to 'those employees who are particularly valuable to an organization – either in view of their "high potential" for the future *or because they are fulfilling business/operation-critical roles*' (CIPD, 2016; Iles, 2008). Similarly, Collings and Mellahi (2009) define strategic TM as:

> […] activities and processes that involve the systematic *identification of key positions which differentially contribute to the organisation's sustainable competitive advantage*, the development of a talent pool of high potential and high-performing incumbents to fill these roles, and the development of a differentiated architecture to facilitate filling these positions with competent incumbents and to ensure their continued commitment to the organisation. (p. 305)

The inclusion of a role element also accords with theory. As discussed earlier in the 'Element 1: Theoretical foundations of talent measurement', resource-based theory would define critical roles as those high in value, rarity, non-imitability and non-substitutability. Lepak and Snell (1999) apply such concepts to the HR architecture, which delineates roles not in fact individuals, and similar approaches have been used by others since in the TM literature (e.g. Martin, 2009).

However, despite recognition that the role may have a profound influence on TM, there is practically no formal guidance or debate on how practically to include such considerations into a *measurement* system. Clarifying the ways in which roles could be assessed and integrated with individual talent measurement may be a substantive possibility for future elaboration and improvement of talent measurement systems. More discussion on this point follows below under measurement criteria and methods.

Including a team focus

A team focus could, perhaps, also form part of some talent measurement systems. On one extreme, teams could form a primary focus, for example in project management or research and development environments. In such cases, the synergies within teams may even lead to an abandonment of individual focus and a development of systems seeking to identify and nurture high-talent teams, even where individual contributions to the teams may vary (again, it may be a delicate and complex interdependence that enables the team to work). Another possibility could consider individuals within the context of teams. Further discussion on this is presented below when considering measurement criteria.

Talent measurement criteria

This element considers which criteria should be used when assessing talent. It is not unusual for multiple criteria to enter into the measurement of talent, whether explicitly or implicitly considered.

Criteria for individual talent assessment: Performance, potential and beyond

The two elements most commonly employed as criteria in talent measurement are *performance* and *potential*.

The measurement of performance, although perennially problematic, is a well-known concept for managers. Performance appraisals are often used, although the methodological section next discusses various options in this regard.

The measurement of potential, on the other hand, is less traditional. Various suggestions have been made, such as the following question banks (e.g. McCarthy, 2009):

- Could the employee perform at a higher level, in a different position or take on increased responsibilities in the short term (consider the person's ability only, not whether there is a position available to support this growth)?
- Can the employee perform two levels above his or her current position in the medium term?
- Is the organisation likely to value growth of the skills and competencies of this employee over the next several years?
- Could the employee learn the additional skills and competencies he or she needs to be able to perform at a higher or different level?
- Does the employee demonstrate leadership ability by showing initiative and vision, delivering on promised results, communicating effectively and taking appropriate risks?
- Does the employee demonstrate an ability to comfortably interact with people at a higher level or in different areas?
- Does the employee demonstrate comfort with a broader company perspective than his or her job currently requires?
- Does the employee demonstrate flexibility and motivation to move into a job that might be different than any that currently exists?
- Does the employee welcome opportunities for learning and development?
- When would this employee be ready for a promotion?

While performance and potential are perhaps the leading considerations used in talent measurement, there may be others that may be considered, some of which are under-researched. Perhaps the most systematic suggestions regarding the domains of talent measurement can be found in the work of Nijs et al. (2014), who noted that in addition to performance and potential other elements can be measured, such as innate ability (notably through psychometric tests),

developmental ability and trajectory (which in addition to performance and potential may include assessments of past education and experience), motivation (through self-assessment tools and self-reflection exercises), interests (assessed as for motivation), interpersonal excellence (typically employing identification of elite upper percentiles of employees) or intrapersonal excellence in which the individual is benchmarked against his or her own personal benchmarks (e.g. through trajectories of personal performance over time, with an emphasis on improvement). An anonymous reviewer noted that many of these may be seen as elements or elaborations on performance (e.g. inter- or intra-personal excellence) and potential (e.g. innate ability), although some – like motivation – may stand alone, as argued by Ulrich and Smallwood (2012).

Age may be another consideration, with older employees who are near mandatory retirement sometimes downgraded in potential merely because time to contribute is short. As contended by an anonymous referee:

> […] typically these criteria normally manifest in the intersubjective conversation and agreement of the talent board/forum and in alignment with the organisation's workforce plan, rather than using them as baseline selection data.

However, firms may wish to create a 'mentor' talent pool of more experienced employees, which is given time, mandate and tools to engage in extensive mentoring.

In countries where legislative and social contexts dictate a high premium on the attraction, development and retention of specific types of employees (usually based on race, gender and considerations such as disability), these demographics may enter into the value attribution placed on employees and therefore the talent measurement system. This issue is discussed further below.

In brief, there may be a variety of added aspects of the individual which could be employed to score talent. Having said this, clearly too many aspects could add confusion and difficulty to the measurement system. Therefore, a balance would have to be achieved.

Measurement criteria for roles

Measurement criteria for assessing roles is another area, should TM professionals heed the call of Huselid et al. (2005) to, in fact, make this a primary concern. Huselid et al. suggest segmenting roles into ordinal (A, B and C) levels; however, they provide no concrete criteria for doing so. Perhaps the leading suggestion is the 'HR architecture' approach of Lepak and Snell (1999), in which roles are differentiated by *value* and *uniqueness*. However, even here little explicit guidance exists on exactly what is the best ways to score these elements, and the concept of uniqueness is arguably one with which managers may struggle. Existing job evaluation systems could aid in this process, the literature for which has developed good measures for role *complexity*, level of *responsibility*, and/or *scarcity*. Ultimately, choices and

combinations of such criteria may add value not only to the talent measurement landscape but also notably to its usefulness in TM.

Measurement criteria for teams

Like individuals, team performance would seem to be an important criterion where teams are to be considered as a TM focus. In addition, however, teamwork itself could form a measure, as could other aspects such as team demography (for instance, team age, gender and race profiles where these facilitate other imperatives such as forward-looking diversity or innovation philosophies).

Measurement methodology

In addition to underlying criteria, there exist a variety of methodological elements from which to choose, including scaling, time series versus cross-sectional considerations, mix of quantitative versus qualitative assessment, and combinatorial methodology in the case of multiple criteria.

Scaling choices

Scaling choices must be made both at the criteria level and at the final talent assessment level if talent pooling is used. As usual for data analysis, basic choices are categorical, ordinal, interval or ratio scaling. Choices made at this stage will fundamentally affect the types of outcomes that can be achieved.

The simplest methodology involves simple in-out decisions regarding membership in certain talent pools (which is also the implied system where a certain percentage of employee groups or departments are identified for talent status, a relatively common approach). Such decisions implicitly still employ one or more of the criteria such as performance and potential, but with a binary measurement outcome. In/out decisions may facilitate exclusive TM, in which one outcome is to isolate one or more specific pools of 'top talent' to which specific TM strategies are applied, such as retention incentives and additional longer-term development opportunities. In the hybrid system, too, the choice to create some pools while still treating all employees as talent may employ such a simplistic system. The actual criteria involved in such binary scaling may still involve explicit or implicit attention to the aforementioned issues such as performance or potential. In-out decisions do not work for inclusive TM which implicitly treats everyone as 'in' talent (Nijs et al., 2014), and lack information for later management of talent; their use is accordingly debatable although they are used.

Organisations requiring more complexity might choose to measure criteria dimensions along continuous or ordinal measurement scales and perhaps even as the outcome of multi-item scales, ultimately using some combinatory system to adjudicate talent status. As a concrete example, certainly the most written about and seemingly the most practiced exemplar of talent measurement systems is the nine-box grid (Silzer & Church, 2009), pioneered by General Electric in the
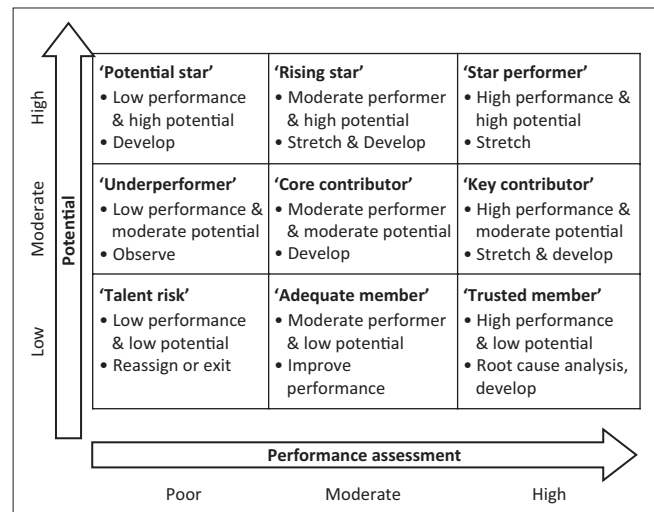
Source: Caruso, K. (2012, April 12). *Development at the Top – Use the 9 Box to Develop Talent in Succession Planning*. Via People Discover the Talent Within. Retrieved from http://web.viapeople.com/viaPeople-blog/bid/81566/Development-at-the-Top-Use-the-9-Box-to-Develop-Talent-in-Succession-Planning

FIGURE 2: A version of the General Electric nine-box talent measurement grid.

1970s. In this system, employees are rated on performance and potential and placed into categories. Figure 2 depicts one version of the nine-box system. These elements are discussed further below.

A few variations on this grid currently exist.

The nine-box grid is not necessarily a set methodology, as organisations could certainly tailor it to their own requirement. However, as shown in Figure 2, it is commonly presented as the result of two 3-level ordinal attributions along the performance and potential dimensions ('low', 'moderate' and 'high' for potential, and 'poor', 'moderate' and 'high' for performance). The measurement methodology is therefore explicitly categorical with ordinal inputs.

In role scoring, another prominent ordinal choice is that of Huselid et al. (2005), who, as discussed earlier, suggest a simple three-level ranking of roles.

Other options of course exist. Continuous data scoring systems can be used, although their use is far less documented than the grid-type approach. An example of continuous scaling can be to use continuous performance scores and some form of continuous potential index and then combine these into an overall index. However, one question with continuous outcome measures is how and whether they facilitate talent pools. In such cases, cut-points would be needed. For instance, as noted previously, analysts may utilise a certain percentage of the most highly rated employees, perhaps with discretionary, qualitative elements to determination of the final choices (as discussed later). One advantage of such systems is that the more metric the scale, the more information is created for subsequent TM, as discussed below.

Time series versus cross-sectional considerations

Many talent measurement systems employ only recent, cross-sectional data for assessment. This approach may make

sense in certain contexts; however, the more data that are gathered and employed over time, the better and more complete the measure of the employees. One example of this, noted by an anonymous reviewer, is a refinement to the use of performance appraisals, namely, aggregating multiple performance appraisals into 'performance tendency' scores to get a longer-term sense of the employee.

One possibility not well mentioned in the literature is to use trajectories of scores instead of averages. For instance, especially within lower level developmental talent, employees showing exceptional trajectories of learning off even a low base may be identified as talent. In this approach, averages do not serve well; instead, slope-type analyses at the individual-level, for example, achieved through latent growth modelling (Chan, 2002) would better serve the needs of talent measurement. There exists no current literature suggesting latent growth modelling as a talent methodology; therefore, this may be an area of potential methodological improvement.

Qualitative assessment

Talent measurement may be either quantitative or essentially qualitative in nature, or both. In the example mentioned previously, a 'top percentage' identification of managers – based on certain criteria such as performance, potential, development scope and age – could be quantitatively measured, left to entirely subjective choice, or both. This is also true for systems in which employees are placed into categories, such as 'rising star' or 'rough diamond' based on certain criteria and with certain TM consequences. As noted by an anonymous referee, it is not uncommon for quantitative systems to provide data to talent committees, who then make final choices based on global impressions that inherently contain subjective choices.

Providers of data

The performance and potential attributions underlying the grid are typically made by employees' direct supervisors. Hypothetically, this could also be achieved by other means, such as a 360-degree feedback mechanism. However, little evidence exists to suggest that such a practice is common aside from its implementation in performance management.

Combinatorial approach

To the extent that different foci and criteria for talent exist, a question that has in some respects already been discussed is how one combines the data into a usable system. As discussed, a purely qualitative attribution relies on the mental schema of managers to make attributions regarding talent, which opens up the system to a variety of decision-making flaws that have been well documented in the performance appraisal literature, such as halo effects. One particularly damaging issue in this regard which may affect the ability of talent and diversity systems to align is homophily, which may cause managers to rate others similar to themselves as talent, thereby limiting the diversity.

Quantitative combinatory strategies rely on two things. Firstly, the *characteristics* of input or criteria data (e.g. as seen with the nine-box grid ordinal, categorical inputs can only combine into categorical outputs). Secondly, the *mechanisms* for combination will profoundly affect the final outcomes (e.g. whether certain criteria or foci are explicitly or implicitly weighted higher than others). For example, do we weight potential higher than performance? Are individuals currently in critical roles given a higher chance of being identified for talent pools? If so, how is this physically done?

This article does not have the space to discuss many of these issues in detail; however, an overarching comment can be made, namely, that such issues are extensively dealt with in the operations research literature (e.g. in the extensive literature on multi-criteria decision analysis [MCDA] or data envelopment analysis [DEA]). It may be a fruitful route to develop TM professionals with operations research training or courses to enable them to approach the mechanisms of data combination for decision purposes more systematically.

Element 3: Final talent choices

As shown in Figure 1, the pivotal outcome of talent measurement is actual attributions along the lines of broad philosophies regarding talent. The introductory section discussing the definition of talent has already developed the core distinctions between the exclusive approach (developing talent pools in juxtaposition to 'non-talent'), the rarer inclusive approach (at an extreme, seeing all employees as talent and managing each person to their maximum potential) and a hybrid approach that attempts to give some attention to all employees while still identifying specific talent pools.

With regard to talent pools, this seems to be the predominant approach. As a key elaboration, it is sometimes necessary for firms to create different talent pools or segments, for instance, leadership talent pools, international talent pools, technical and/or specialist segments, and so on (Boudreau & Ramstad, 2005a). Others suggest alternative options such as differentiated talent pools based on predominant individual need (e.g. Uren, 2011).

The notion of talent pools implies differential management and, usually, expenditure. Often, firms enact talent pools because of the belief that specific high-value development opportunities with broad and long-term advancement aims cannot typically be given to everyone as a result of resource constraints, so they will seek to identify individuals under some talent measurement rubric to send on such opportunities. Likewise, specific and costly retention incentives such as retention bonuses may only be targeted to those believed to have long-term value and growth potential within the organisation.

It should be noted that talent measurement does not necessarily obviate movements over time between states by a given individual. As with shorter-term appraisals, just

because a certain individual is categorised or scored in a certain way (say, as non-top-talent) does not mean that the individual cannot either improve in various inputs to the system (say, performance and potential) or that the organisation re-evaluates its own needs relative to the individual's offering.

A challenge for inclusive TM is whether it implies anything more than good HRM, which, after all, seems to encompass any possible TM intervention and which traditionally has been seen as applied to all employees. Collings and Mellahi (2009) summarise arguments for why inclusive TM may be different. On the measurement front, the point made earlier applies here: talent measurement for inclusive TM must by necessity provide some more complex information than in/out attributions which by definition do not apply to it.

Having settled on a final talent measurement outcome, further considerations that have not been well researched may arise, as discussed next.

Element 4: Further talent measurement considerations

There exist several further areas of possible uncertainty or controversy within talent measurement. This final section discusses some of these issues, including some that have not been discussed before. Figure 1 lists areas of possible uncertainty or controversy them and differentiates their impact by talent measurement system, although this is a rough allocation.

Should individuals be told about their talent status?

One area of controversy that has been subjected to some analysis and debate is whether individuals should be told about their talent status or score, especially early in their progression. As indicated in Figure 1, however, this is a factor faced only by organisations using talent pool concepts, notably in the exclusive approach where talent is contrasted implicitly with 'non-talent'.

The advantage of revealing talent status to individuals is that this potentially affords motivation and commitment to those identified in talent pools or higher measurement categories (Gelens, Dries, & Hofmans, 2013; Swailes & Blackburn, 2016), creating an enhanced perception of social exchange within the psychological contract (King, 2016). Of course, those identified as 'non-talent' or in lower measurement categories may experience negative reactions such as loss of engagement or withdrawal behaviours (Gelens et al., 2013; Swailes, 2013; Swailes & Blackburn, 2016), although for others this may act as a spur to improve. In addition, explicit identification as talent creates high exchange expectations, which, if not met, may cause psychological contract breach (King, 2016; Swailes & Blackburn, 2016).

An alternative to revealing talent 'status' is simply for managers to enact TM strategies appropriate for the measurement of the individual, without discussing the measurement basis. For instance, managers may tell high-talent individuals that they are to be developed in certain ways or offered retention bonuses, inferring talent status without the need for a label, while lower measurement individuals may be given guidance as to where they are performing well and how they may improve, again, however, without the need of unnecessary labels such as 'adequate member' or the like. Either way, recent evidence suggests that it is important to avoid incongruent messages regarding talent status, which ultimately may lead to the risk of psychological contract breach (Sonnenberg, van Zijderveld, & Brinks, 2014).

The marriage of talent and diversity and/or transformation

One question that has received little attention is whether talent and diversity management are necessarily easy bedfellows, especially if the latter manifests as pressure to implement short-term transformative targets based on narrow definitions of diversity. South Africa's black economic empowerment and affirmative action legislation presents examples of such regulatory-driven pressures, which especially with respect to management require rapid consideration of race and gender transformation in particular. Such considerations will naturally affect talent identification, notably within leadership and/or succession pools.

The effects of such policy interactions on talent *measurement* mechanisms are not entirely self-evident. One obvious approach is to engage in excellent diversity attraction, development and retention such that talent pools are naturally stocked with appropriately diverse individuals, in which case measurement can essentially ignore the issues of diversity. However, especially in the context of skills shortages, this strategy may be too long term and uncertain to ensure an appropriate mix of individuals in affected talent pools. Shorter-term, more deliberate mechanisms may be required.

Let us consider a typical South African company which faces transformation pressures to increase percentages of black and female staff in middle to senior management positions in particular, and must primarily achieve this by working with an equivalently staffed talent leadership pool which will be groomed for leadership through mechanisms such as expensive business school courses, mentoring and the like. How does it adjust a traditional talent measurement system to achieve the extra end of transformation? If, say, it used a performance or potential system with no other considerations, it cannot be guaranteed that the system will produce the required profiles of staff.

One option is first to segment the talent pool by quotas of required groups, and then pick the best available performers

or potentials within each subgroup. However, this may leave top candidates unchosen for the pool, given the need to limit segment sizes. With unlimited resources, the firm could hypothetically expand the talent pool to include all relevant candidates, while still ensuring adequate numbers of desired candidates for ultimate transformation of the management levels; however, such a strategy is prohibitively expensive for more constrained firms and may lead to resentment by those chosen for such a talent pools but who ultimately may find their ability to progress limited by transformation imperatives (e.g. Cappelli, 2008). Another approach may be to redefine the actual measurement bases for this talent pool, perhaps focusing more on potential and specifying potential to have a transformation requirement or weighting (a possibility hinted at by Swailes et al., 2014, p. 531).

One promising area that may help is the addition of an environmental aspect to talent criteria, which has been noted as a potentially key aspect of talent development (Meyers, van Woerkom, & Dries, 2013). Explicitly building consideration of background environment into talent measurement may provide options for increased diversity. However, no explicit guidelines exist for this in measurement systems, suggesting another area for exploration.

Little has been explicitly discussed on this issue despite transformation and talent forming dual imperatives for organisations in many countries such as South Africa.

Integrating individual and role measurement systems

This issue has been discussed to some extent in the preceding sections. If role measurement is even included, the question at this stage is whether to integrate individual and role measurement at the measurement stage or to leave them separate but align their information at the TM stage, or in essence both. An example of the former approach is using role information in scoring employees for talent pool membership, for instance, requiring higher performance or potential scores from individuals in non-critical roles than in critical roles. The latter approach is that of Huselid et al. (2005), in which they suggest moving 'A' talent to 'A' positions over time, removing 'C' players from 'A' positions, and so on. This really places role measurement in the HR planning realm.

Element 5: Subsequent talent management

Various suggestions exist for linking such measurement systems to managerial implications. A basic approach word that is commonly referenced (e.g. 'stretch' for the high-performing high-potential 'star performer' group) has already been suggested in Figure 1. Figure 3 adds detail to such suggestions, based on suggestions by sources ranging from the academic to the practitioner (e.g. Caruso, 2012).
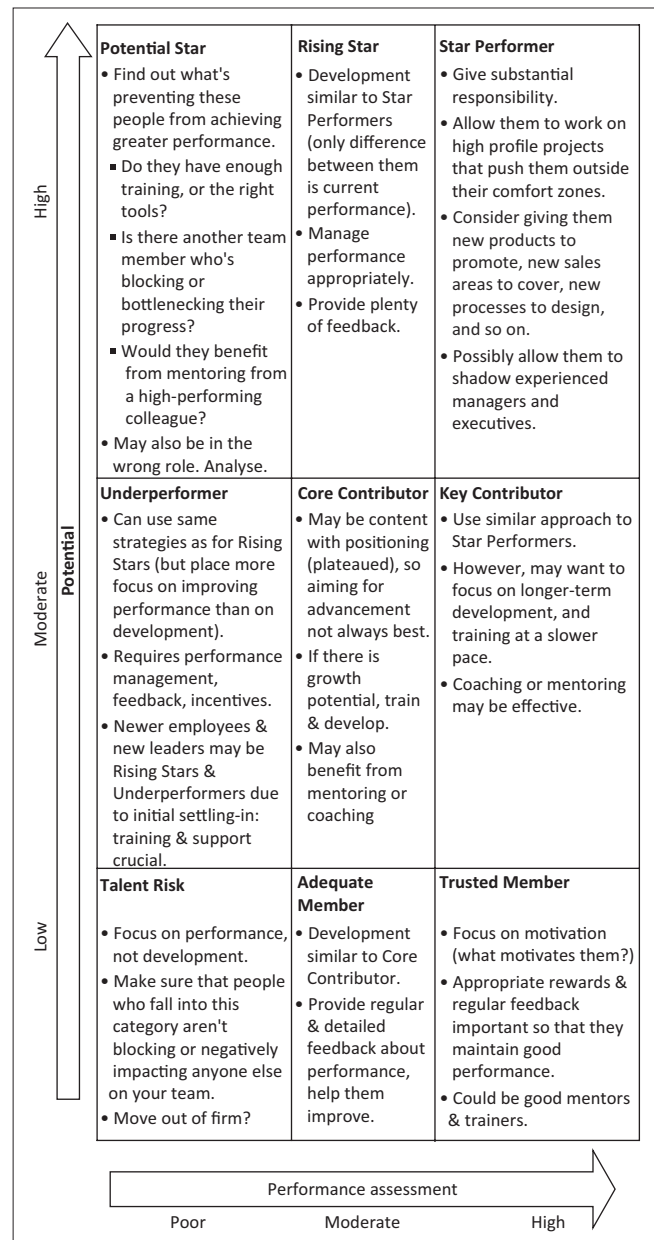
FIGURE 3: Some possible reactions to employees in nine-box grid positions.

In organisations that also work off a 'top talent pool' concept, models such as the nine-box grid can act as an intermediate measurement step, with top talent then identified potentially as consisting only of those in certain of the categories (for instance, an organisation might define 'top talent' as star performers, rising stars and key contributors).

A further issue is whether the broad talent measurement criteria generally used – typified either by general 'top talent pool' allocation or by performance and potential measurement – are helpful to the TM processes that they are meant to initiate. For instance, talent managers may wish to target specific development and training initiatives to individuals, know whether to apply retention options and the like.

Simply being placed in a top talent pool gives no useful individual-level information for TM and would therefore

have to be supplemented with further analysis, unless organisations are content to apply generic policies to talent. While discrepancies between performance and potential may lead to some differentiation of strategies, as seen earlier with the nine-box grid, these guidelines are still quite general. It is desirable that explicit analysis of individual positioning within TM areas should be done to provide a more direct route for TM. For instance, within training and development, individuals could be scored with regard to the applicability of management development, leadership training or the like. Managers could score individuals on the desirability of retaining for the long term. Such analysis would therefore not only provide the basis for talent differentiation but also give individual-level guidance for subsequent TM.

A final note again supports the use of role analysis: such information supports a great many TM processes from recruitment (with more effort put into critical jobs and aligning talent to them), succession and retention (with, again, more focus on critical positions) and the like.

Implications for research

Many research agendas arise from this article. Firstly, it would be desirable for research to survey current usage of talent measurement in South African organisations. Furthermore, employee, manager and talent professional views on the success and desirability of various approaches would be desirable (for instance, in exclusive vs. more inclusive systems). One important point arising from the model in Figure 1 is that despite its popularity the purely exclusive approach (especially where initiated through in/out measurement only) has many potential disadvantages, such as being less likely to integrate with transformation imperatives, creating in-out groups and subsequent tensions, and being less likely to facilitate subsequent TM with quality information. Having said this, managers may prefer the capacity of exclusive TM to focus budgets and effort sharply, rather than attempt to split the attention of TM initiatives. Given these tensions, in South Africa particularly, methods for integrating diversity and TM should be surfaced in case studies and should be disseminated. Controversial areas such as whether to reveal talent status in South Africa should also be studied, with one possibility being experimental approaches.

Conclusion

Talent measurement has become pervasive as part of TM, but has remained relatively poorly discussed. This article has provided a holistic framework for talent measurement, rooted the practice in management theory, reviewed common usage and suggested several areas of research and possible consideration as organisations seek to enhance their analysis and deployment of talent.

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The development of a talent management framework for the private sector

Authors:
Ebben S. van Zyl[1]
Rose B. Mathafena[2]
Joyce Ras[1]

Affiliations:
[1]Department of Industrial Psychology, University of the Free State, South Africa

[2]Sasria Insurance Company, Johannesburg, South Africa

Corresponding author:
Ebben van Zyl,
vanzyles@ufs.ac.za

Orientation: Talent management is a strategic priority especially for profit-generating organisations in the private sector. Limited research has been conducted on the theoretical development of talent management. The need for talent management is also triggered by a need to align and integrate people management practices with those of the organisation in order to achieve strategic execution and operational excellence.

Research purpose: The primary aim of the study was to develop a talent management framework for the private sector. The research proposed to conduct an in-depth exploration of talent management practices in key and leading organisations already in the mature stages of talent management implementation in South Africa.

Motivation of the study: There is a need for the development of best practices in talent management – where talent management strategy is designed to deliver corporate and human resource management strategies. The formal talent management initiative would be linked to the human resources management function and will flow vertically from the corporate strategy-making process.

Research approach, design and method: The modernist qualitative research approach was applied to the study. Data were collected through semi-structured interviews (18 persons were interviewed in total). Analytical induction method was instrumental in facilitating the overall data analysis, while constructivist grounded theory assisted with the operationalisation of the data analysis.

Main findings: The study has mapped out key dimensions which are essential for the implementation of talent management. The dimensions of talent management are attraction, sourcing and recruitment, deployment and transitioning, growth and development, performance management, talent reviews, rewarding and recognising, engagement and retention. With each of the above-mentioned dimensions, the activities that are to be carried out to achieve the outcome of each dimension are specified.

Practical and managerial implications: Role clarifications pertaining to talent management responsibilities and accountabilities are still unclear in most instances. Early identification of key role players and articulation of duties will lead to ownership and clear accountabilities for the successful implementation of talent management.

Contribution/value add: The study brought to light critical factors for organisations in the private sector to consider for the successful implementation of an integrated, holistic and comprehensive talent management framework. The proposed framework guides talent management practices within companies in the private sector by highlighting activities to be carried out to achieve outcomes per talent management dimension.

Introduction

Key focus of the study

This study focuses on the development of a talent management framework for the private sector. There seems to be a lack of a uniform theoretical talent management framework in the private sector, which can be used as a guideline to drive talent management.

Background

Collings and Mellahi (2009) asserted that since a group of McKinsey consultants coined the phrase 'war for talent' in 1997, the topic of talent management has received a remarkable degree of practitioner and academic interest. This relatively recent emphasis on talent management

represents a paradigm shift from more traditional human resource to strategic talent management, which according to Silzer and Dowell (2009) is driven by corporate strategy, incorporated with other processes, managed as a core business practice and deep-seated as a talent mindset. The Chartered Institute of Personnel and Development (2006) further views excellent and best practice level of talent management as a strategy designed to deliver corporate and human resource management strategies. Often there is a formal talent management initiative linked to the human resources management function and flowing vertically from the corporate strategy-making process.

According to Powell and Lubitsh (2007), talent management has moved rapidly up the corporate agenda in recent years, and this is evident in the amount of research papers published over the last decade (e.g. Ashton & Morton, 2005; Bersin, 2006; Chikumbi, 2011; Church, Rotolo, Ginther & Levine, 2015; Collings, 2014; Festing & Shafer, 2014; Nijs, Gallardo-Gallardo, Dries & Sels, 2014; Meyer, 2005; Odierno, 2015; Prinsloo, 2012). Egerova (2014) is of the opinion that the increasing attention to talent is affected by factors including globalisation, knowledge-based competition, changing the world of work as well as new forms of organisations and demographic changes.

Despite the growing popularity of talent management and over a decade of debate and hype, the concept of talent management remains unclear (Collings & Mellahi, 2009; Festing & Schafer, 2014; Nijs et al. 2014). Furthermore, the current state of talent management literature is exacerbated by the fact that in addition to ambiguities around the definition of the concept, there is also alarmingly limited theoretical development in the area as highlighted in the research conducted by Arris, Cascio and Paauwe (2013). Consequently, even though business and consulting firms in the private sector have been driving talent management as a strategic priority, there seems to be an overall lack of theoretical frameworks in the academic field.

Overall, there also seems to be a lack of linkage between talent management practices and the broader human resource systems (Ntonga, 2007), as well as an absence of clear succession planning, skills audits and organisational culture driving talent management (Chikumbi, 2011).

This study attempted to bring to light critical factors which must be taken into account to ensure that organisations can achieve successful implementation of an integrated, holistic and comprehensive talent management framework. The framework will strive to guide talent management practices within companies in the private sector, and also improve and advance the maturity of talent management application.

Purpose

The primary aim of the study was to develop a talent management framework for the private sector. The secondary aim of this study was to conduct a modernist qualitative research study in order to explore and gain in-depth knowledge on talent management and what it entails.

More specifically, the study aimed to:

- bring to light the understanding of the concept of talent management through moving towards a clear language of defining talent management as well as the content thereof
- apply qualitative research and the use of analytic induction as an overall data analysis strategy, while using constructionist grounded theory to operationalise the data analysis, thus elucidating how these approaches can be used in talent management studies
- inform human resource practitioners and business managers on how to plan, implement and evaluate talent management in their business in the most comprehensive, systematic, integrated, strategically driven and flexible manner while realising the benefits for the business.

Contribution to the field

The study will contribute theoretically and practically to the operation of businesses in the private sector. From a theoretical perspective, the concept of talent management is illuminated, and knowledge in the field of talent management is extended through the development of a talent management framework. The practical contribution includes access to a well-integrated talent management framework, the purpose of which is to facilitate the implementation and improvement of talent management.

Furthermore, human resource practitioners and talent management specialists will benefit from the developed talent management framework as it will aid and guide the best practice of talent management. The implementation of the best practice of talent management will work only if the planning, implementation, tools, practices, tactics and dimensions of talent management are correctly applied as advised by the research insights.

Lastly, the current status of qualitative research, analytic induction and constructivist grounded theory will be expanded in the areas of talent management and human resource studies in South Africa.

What will follow

A conceptual overview of talent management is provided below, as well as a discussion on key aspects linked to talent management, followed by a description of the research design and results.

Conceptual overview of talent management

Meyers and Van Woerkom (2013, p. 23) refer to talent management as 'the systematic utilisation of human resource management (HRM) activities to attract, identify, develop, and retain individuals who are considered to be "talented"'.

Meyer (2005) highlights that the attraction, growth and retention of talent are key factors for modern organisations that are knowledge driven. To be known as an employer of choice is considered a key organisational goal with direct benefits.

Chikumbi (2011) in a quantitative study investigating talent management and staff retention at the Bank of Zambia reveals that successful management of talent and employee retention leads to the organisation attaining a competitive edge. The study highlights that improved talent management leads to increased productivity, motivated staff, innovation and high employee contribution towards the organisation.

Odierno (2015) states that talent management offers real and tangible benefits of reducing recruitment costs, effective knowledge transfer, realisation of business strategy, delivery of cutting-edge services and products and the creation of a competitive advantage, in spite of the many challenges that organisations face in order to be sustainable. Ashton and Morton (2005) argue that good talent management is of strategic importance and can differentiate an organisation when it becomes a core competence, and its talent significantly improves strategic execution and operational excellence.

Prinsloo (2012), in her study of talent management and the psychological contract, provides evidence that management can use talent management practices to strengthen the psychological contract, leading to lower turnover, improved motivation productivity and loyalty. Bersin (2006) asserts that entry into the new era of talent management was because of more challenging people-related issues requiring tighter integration between human resource silos and the business. As an organisation strives to meet business goals, it must ensure that it has continuous and integrated processes for recruiting, training, managing, supporting and remunerating these people, and thus the need for talent management.

Key aspects linked to talent management

The next section will highlight the key aspects that could be linked to talent management (as identified out of the literature).

Employer of choice, best company to work for and employer brand

The branding of a company as 'employer of choice' and 'best company to work for' is important in supporting talent management initiatives, as the company will have a reputation of being a great place to work for (Gatherer & Craig, 2010). Li and Bryan (2010) emphasised that in the quest to become employer of choice, organisations need to create and sustain a workplace which brings a deeper understanding of elements contributing to the workplace climate.

Employee engagement

Tucker and Williams (2011) believe that various actions taken at different points of the talent management cycle boost employee engagement. Effron and Ort (2010) suggested that most talent management practitioners believe that increasing engagement achieves the business objectives of improving key financial and operational results. Furthermore, Caplan (2011) claims a link between talent management and employee engagement in that talent management significantly impacts employee engagement, as they have common and similar indicators such as employee development, utilisation of employees' capability and so on.

Employee value proposition

Collings (2014) asserted that employees who create and contribute value to the organisation should get value back from their organisation in the form of employee value proposition (Employee Value Proposition). Bell (2005) views the Employee Value Proposition as a key differentiator of success for organisations competing to recruit, develop, inspire and retain talented people. The best practice is to develop a convincing, credible and competitive Employee Value Proposition which can be responsive to the expectations of talent.

Organisational culture and core values (healthy climate)

DeLong and Trautman (2011) highlighted that organisational culture can be used to drive talent management, as culture is a major factor in determining the success of projects and programmes. You can have the most elegant leadership development plans and talent management initiatives imaginable, but if they are not supported by company cultural practices, norms, values and assumptions, then these programmes will have little impact. Pellant (2011) perceived culture as the way people behave, as culture is in the behaviour that is permitted and in the attitudes that are allowed. In organisations, culture exists in how people treat each other, customers, suppliers and other stakeholders. Therefore, a set of behaviours and actions which encourages and supports talent management has to be cultivated and promoted. Haid, Sims, Schroeder-Saulnier and Wang (2010) are of the view that the shared assumptions and values of how to behave and carry out work activities in the organisation must be aligned with the desired culture to achieve business objectives and also support talent and people management practices.

Alignment of business strategy to talent management

Hatum (2010) emphasised the importance of aligning talent management strategies with those of the overall organisational strategy. Johnson, Scholes and Whittington (2011) view strategy as the direction and scope of an organisation over the long term, which achieves advantage in the changing environment through its configuration of resources and competencies with the aim of fulfilling stakeholder expectations. The firm needs to have the ability to deliver a holistic talent management strategy which supports the

overall business strategy, and in turn allows the firm to perform strongly in the market. According to Johnson et al. (2011), this means that the firm has one coherent plan that brings all areas together in a consistent manner. Internal alignment in areas of information technology, communication, finance, legal, marketing, human resources and talent management is critical in sending clear, reliable and consistent messages to employees.

Career life stages and phases

Knowledge of the various career life stages and phases is important, particularly in relation to talent management processes as it creates an understanding of the particular needs and preferences of the talent, for example, what learning programmes, reward systems, engagement, branding and attraction tactics can be employed for the talented at various career and life stages (Cron & Slocum, 1989). Hess and Jepsen (2009) acknowledged that there are age-related differences related to differences in individual needs based on their career stage. The specific needs for career development, promotions and success of each career stage need to be identified. In the early stages, employees are focused on achievement, getting ahead, personal growth, self-esteem and competence as these are key priorities (Hess & Jepsen, 2009).

Generational theory and multiple generational workforce

Boshard and Louw (2011) projected that half of the retiring baby boomers in senior management positions would widen the gap of talent availability and supply, which would result in most companies turning to Generation X and Y employees in search of talent and skills. The white paper released by the United Nations Secretariat Headquarters (Boshard & Louw, 2011) strongly proposed that managing a multigenerational workforce is a challenging art in itself and that understanding the differences between the generations is fundamental in building a successful multigenerational workplace. Organisations must seek to optimise the talents of all age groups, while reconciling differences in the workplace, educating and allowing employees to utilise this diversity for individuals and for organisational advantage.

Stratified systems theory, levels of work and complexity

Talent management goes hand in hand with placing high potential employees on highly critical work projects, and also progressively growing and promoting people. Careful thought has to be placed on the complexity of the role against a set of skills and competence possessed by the employee at a particular career and life stage (Greene, 2010). Stratified systems theory and levels of work and complexity theory help to shed light on identifying the required skills for each complex role (Greene, 2010).

Ethics in talent management

Rose (2007) views ethics as a key branch of philosophy concerned with analysing what is right and wrong in people's behaviour or conduct. Ethics and morality are terms that are often used interchangeably in discussions of good and evil. Talent management as a practice needs to incorporate a moral and ethical stance, while adding value to the organisation. A high degree of standards, credibility, fairness, justice, taking responsibility and professionalism have to be exhibited in all activities related to talent management (Hess & Jepsen, 2009).

Research design
Research approach

The qualitative research approach was selected because of the nature of the research process being flexible and emergent. Leedy and Ormrod (2010) indicate that qualitative research seeks a better understanding of complex situations and is sometimes exploratory in nature. A modernist qualitative research method was utilised in order to explore and gain in-depth knowledge on talent management and what it entails. With the study, the researcher hopes to further examine effective and leading best practices and challenges in the implementation process of talent management. Analytic induction and constructivist grounded theory was applied to analyse the data.

Case selection strategy

A multiple site case study design was adopted as the research was conducted in two different companies, mainly for the purposes of comparison and verification and to observe similarities and characteristics in the data sets collected (Moore, Lapan & Quartaroli, 2012). According to Bromley (1990), case study research is a systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest. Leedy and Ormrod (2010) explain that in other instances researchers study two or more cases, often cases that differ in certain key ways in order to make comparisons, build theory or propose generalisations. Such studies are called multiple or collective case studies.

Research method
Research setting

The field setting can be described as those companies who are identified as 'Best Employers' and are certified as such because they meet the requirements of being competitive in the areas of human resource management. They are serious about distinguishing themselves amongst industry peers in the critical areas of pay and benefits, training and development, career opportunities, working conditions and company culture. According to the Corporate Research Foundation (2011), widely known as the Corporate Research Foundation Institute, both the companies are listed in the top 10 ranking as best employers in the private sector.

Entrée and the research roles establishment

Quandt, McDonald, Bell and Arcury (1999) indicated that gaining entry into the research field is quite an intensive process which requires perseverance, persistence and a lot of

planning and communication skills. Yin (2011) stated that doing research implies interacting with the real world, situations and the people in them. In order to enter and exit research settings, some formality is required, particularly in obtaining the necessary permissions to do the study. In gaining entry to the field, key informants who provided authorisation and permission to conduct the study in the two identified companies provided a list of potential participants for the study. The potential participants were approached through electronic mail to communicate the purpose of the study, and thereafter the interviews were scheduled. The researcher adopted a formal interviewer role, attempting to elicit responses from the interviewees. The researcher used notes, as participants did not feel comfortable with the use of a voice-recording device. The researcher also assumed the role of an observer of the participants, the work environment and of the general company employees.

Sampling

The purposive non-random or non-probability sampling method was selected for the study. In addition, convenience sampling was used with regard to the unsolicited documents issued to support the interview data. In this type of sampling, the researcher determines the most typical characteristics of the participants that could be included in the sample. Inclusion criteria are created based on the judgement of the researcher and are used to deliberately include specific participants in the study (Botma, Greeff, Mulaudzi & Wright, 2010). Characteristics essential for membership in the sample were as follows: the participant must be employed in an organisation that clearly practices talent management or must have been exposed to talent management practices as a manager, human resource practitioner or a beneficiary of the talent management programme.

Research participants

The participants identified for the study were human resource practitioners, management members and beneficiaries of the talent management programmes. The selected organisations are widely and publicly recognised for having effective talent management programmes.

From Company A, nine participants took part in the first round of interviews, of which five were white females, two Indian females, one African female and one African male, all aged between 31 and 55 years, with one exception aged below 30. Four participants from Company B took part in this first round of interviews, of which all were white, two males and two females aged between 36 and 45. Interviews with participants lasted for 60–90 min.

The second round of interviews (to test the framework and collect additional data) were conducted with one person from Company A, who issued the researcher with seven documents, while from Company B four participants were interviewed. Four of the participants had a degree and had completed postgraduate studies. Four of the participants

were already at middle and senior management levels in their careers, while one was at junior management and executive level.

Data collection methods

To achieve the objectives and aims of the research, the researcher opted to combine a few methods of data collection. Botma et al. (2010) stated that qualitative researchers typically gather multiple forms of data and thus make use of a combination of research methods. The data collection methods refer to interviewing, observations, document collection and field notes. During the first round of the one-on-one interviews, the researcher followed a semi-structured approach of interviewing (at the organisations' premises) in order to ensure that the open-ended questions were aligned with the research questions. This allowed flexibility and additional questions to arise during the interview process. The unstructured, in-depth interview was used during the second round of interviews to verify the initial proposed framework and the initial data analyses and coding of themes. Furthermore, the researcher conducted informal and unstructured observations of the participants, the settings, the environments and how people interacted in the company environment. The unsolicited documents in the form of internal company publications (agendas and minutes of meetings, internal office memos, financial records and annual reports) were issued to the researcher to support the data.

Data recording and storage

Leedy and Ormrod (2010) suggested that in conducting a productive interview, the researcher needs to record all responses verbatim, whether through the use of handwritten notes, shorthand and tape recordings or via direct capturing onto a computer, especially if it is an unstructured, in-depth interview. Interview data (from conversations, responses and information given by the research participants during the semi-structured interviews) were recorded in a written format. All the handwritten data were transferred and converted into an electronic format through a word processor. Furthermore, precautions were taken to safeguard data through backup on a compact disk, flash drive or a storage device that can be kept in a safe place.

Data analysis

In the current study, Johnson's (2004) analytical induction procedure was applied, as implemented in Bondas (2006), as well as Charmaz's (2000) constructivist grounded theory for operationalisation of data analysis. Findings of Marshall and Rossman (1995) were incorporated to cover the data testing, validation and verification phase. Analytical induction according to Smelser and Baltes (2001) is a research logic used to collect data, develop analysis and organise the presentation of research findings. Its formal objective is causal explanation, a specification of the individually necessary and jointly sufficient conditions for emergence of some part of social life. A slightly modified approach

of analytical induction was applied as an overall and overarching data analysis method. Charmaz (2006) defines grounded theory as an inductive, iterative and comparative method geared towards theory construction. Grounded theory served the purpose of operationalisation of the data analysis, more specifically for coding purposes. The analysis process entailed a movement between deductive (theory and literature) and inductive analysis approaches (emergent insights from the data), resulting in the development of the talent management framework. Thomas (2006) views deductive data analysis as set out to test and illuminate consistency with prior assumptions, knowledge and theory.

The initial coding process achieved the clustering of similar data sets, and also the naming of these. Once the initial coding was completed, the researcher then progressed to the focused coding where the dense data were further de-layered into simpler and more specific sub-themes. These sub-themes are substantiated and supported by excerpts from the interview scripts. The focused coding stage resulted in the reduction of the data even further to identify and develop relevant sub-themes.

Theoretical coding consequently led to identification of the interrelatedness and the relationships between the concepts, themes and sub-themes, leading to the development of the talent management framework.

Furthermore, the sense-making of the data which resulted in the initial and proposed talent management framework was supported and influenced by a combination of prior knowledge (deductive) as well as emergent insights (inductive) from the data. Thomas (2006) refers to inductive analysis as a detailed process of reading the data to derive concepts, themes, models and frameworks. Thomas (2006) views deductive data analysis as set out to test and illuminate consistency with prior assumptions, knowledge and theory.

Validation, verification and triangulation of the initial talent management framework

Following the analytic induction process, the researcher visited Companies A and B to verify, test, triangulate and validate the initially developed framework through unstructured follow-up interviews with the five participants. The initially proposed talent management framework was electronically mailed to the participants in order for them to advise on whether the framework could be improved, and to indicate the aspects needing improvement. The sixth participant opted not to have an interview but confirmed via electronic mail that the framework and the analysed data constituted a true reflection of what was discussed in the initial round of the interviews conducted. Out of the six participants, two took part in the initial interviews and confirmed and validated the data in comparison to the initially proposed framework. While the other four were not involved in the initial interviews, they could only comment mostly on the comprehensiveness and relevance and could also advise on what concepts should be incorporated into the initially proposed framework to improve it further.

Furthermore, the two companies offered the researcher eight documents in the form of internal publications. The offering of these documents was completely unsolicited. Therefore, the researcher applied initial, focused and theoretical coding principles to analyse the unstructured interviews and the documents.

Ensuring quality of the study

In conducting the study, the researcher had to ensure the quality of the study in every step of the research, while also adhering to ethical conduct and standards.

For the trustworthiness of the study, the researcher had to ensure that the insights were that of the research participants and not her own. The researcher ensured the correct meaning and wording of what participants shared with her, by writing down and repeating it in the presence of the interviewee. Credibility triangulation was applied through collecting data from the two cases or companies as a basis for comparison. Furthermore, the researcher conducted the second round of interviews at the same companies with a mix of old and new participants. In addition, unsolicited documents were also used as a source of triangulation, verification and validation of the data, as well as for testing the proposed talent management framework.

Results

To develop a talent management framework for the private sector, the researcher formulated key and central research questions, which were answered by the research participants and are reflected in the themes and sub-themes. The research questions are listed below:

- What are talent and talent management?
- What does the content of talent management entail?
- What are the typical challenges experienced in the implementation of a talent management programme?
- What are effective talent management practices which are working, and why are they working?
- What can be done to improve the effectiveness of talent management programmes?
- What are the leading best practices regarding recruitment, deployment, development, engagement and retention of talent?
- What value does talent management add to the organisation?
- How do individual career life cycles influence the approach to talent management?
- What is the link between diversity management and talent management?

According to Lacey and Luff (2009), the initial coding process entails the beginning of identification of themes and emergent concepts, which will later lead to the engagement of recoding to develop more well-defined categories. Familiarisation with the data by reading and rereading is essential.

The researcher read through the data to get a general sense of what the participants had said. She then started putting similar ideas together into chunks. The chunks of data were grouped together based on an answer to a particular question, idea or theme. The researcher had found that questions from the semi-structured interviews shaped the formation of the data because similar data sets were clustered around a particular question. The researcher then decided on an initial label, code or descriptive wording to name the chunks of data brought together. She then came up with nine data labels, namely, defining talent and talent management, talent management programme content, information technology and systems, organisational climate and culture, role players in talent management, challenges in talent management, business case for talent management, optimising talent management and career life stages.

Defining talent and talent management

Table 1 represents excerpts from interviews with all participants on how they defined talent. There seemed to be strong cohesion and consensus about the definition of talent. No conflicting views about the profiling of talent, even between Companies A and B, were noted. The data were further clustered into sub-themes to highlight the important concepts which led to the overall definition of talent.

Table 2 gives a brief definition of talent management as per the participants' data input. The most important view arising from the data is the perception of talent management in the context of the overall employee life cycle (from hiring to exiting).

Talent management programme content

Table 3 demonstrates the participants' views on what a talent management programme should entail in the best practice environment. The various sub-themes are segmented and supported by ideas and insights from the participants. The content of talent management and sub-themes are critical in the ultimate formulation of talent management dimensions or elements.

Information technology and systems

In Table 4, the participants and sources indicated how information technology and systems can assist and support the talent management processes and implementation. Having systems and processes will not necessarily make the practice of talent management successful but will enable the effectiveness of the process. These systems are mainly for reporting and data management purposes.

Organisational climate and culture

In this theme (see Table 5), the participants emphasised the importance of the overall culture, values and behaviour at work, which set the mood or temperature of the workplace environment. The point that is driven is that it is important to create a healthy and humane work environment where people can look forward to coming to work.

Role players in talent management

In Table 6, the participants and sources highlighted the importance of role clarity in the implementation of talent management. Clear accountabilities and deliverables need to be set, as to who does what, and who is responsible for what with regard to talent management.

Challenges in talent management

Participants with exposure to talent management practices have reflected on the potential and the real challenges that come with the implementation of talent management (see Table 7). Issues that could potentially derail talent management implementation are flagged, thus creating awareness to help prevent future pitfalls. Much as the companies strive for people management best practices, certain areas still need improvement.

TABLE 1: Defining talent.

Theme 1: Talent	Excerpts from interviews
Talent	Talent does work for our clients as we sell time, knowledge, service
	People are not machines on a production line
	Time and money must be invested in people to build
	knowledge and experience
	Talent Management brings profit
	Talent – best profile – culture, skills, academic
	Cream of the crop
	They are top 10% in the organisation (A7)
	Talent is key to people in business operations (A8)
	This excludes poor performers
	May be individual contributor (specialist or manager) (B1)
	Talented are defined as having strength and passion – are excellent people (B2)

TABLE 2: Defining talent management.

Theme 2: Talent management	Excerpts from interviews
Talent management	Talent Management is a philosophy of how to manage talented people
	Programme is critical
	It is about attracting and managing the best out of people
	Need to keep them engaged, it is challenging to retain them
	Talent Management is to identify current talent and future talent
	Support them in growing and being happy
	Ensure engagement based on individual needs, constant learning
	Talent Management is everything from attracting, selecting, recruiting, retaining, exiting and life cycle of the employee with the company
	Talent Management – learning, acknowledgement, career pathing detailed with timelines, counselling, open communication, performance evaluation
	Talent Management – process of acknowledging, recognising, and investing in people strengths
	Ensuring derived benefit from the programme of training and developing skills
	Opportunity to gain skills and experience
	Be exposed to key leadership in the process

Business case for talent management

In this section (see Table 8), talent management is not viewed in isolation from the business operations. The importance and necessity of talent management is shared by the participant as a business imperative necessary for continuity and success of the business. The value add of talent management is highlighted below in the sub-themes that arose.

Optimising talent management

The participants shared their views on how to further enhance and improve current talent management practices

TABLE 3: Talent management programme content.

Theme 3: Talent management programme	Excerpts from interviews
Best practices of programme content	Tell talented people the truth
	Accommodating female gender to work flexibly
	Recruit through headhunting and graduate recruitment
	Senior leadership must buy in to the programme
	Senior leadership must be part of the learning and development
	Having good managers is key to retention
	Managers play a critical role in training people to be competent
	Communication is critical in influencing and retention
	Communication between leadership and employees
	Adjust and be flexible about the programme
	Add fun to the equation
	Treat employees as clients
	Sincerity of communication is critical
	Honest and open feedback is good for people
	The programme for high potentials in various steps of progression
	There are calibration sessions, on round tables to review talent
	Human resource management and line management justify talent ratings
	Ratings are questioned and there are participative, robust discussions
	Talent review process ensures evaluation, checking and consistency of the programme
	Learn more about diversity and cultural differences
	Have a clear criteria for identifying talent with no subjectivity
	As a benefit, there is an employee assistance programme – they arrange service providers (booking a holiday, tutor children after school, baby sitters)
	There is a gym in the building
	There is a counselling helpline for personal and emotional support of employees
	A prestigious brand makes a difference – people want to join the organisation
	The programme of managing high potentials is excellent
	It is part of talent acquisition
	The programme has to incorporate diversity to have right mix of people
	Grading process – allows broad banding

Sub-theme: Best practices of programme content

Learning, development and competencies	We train graduates in accounting and tax fields for 3 years
	Formal training, study funding, study leave generous
	They learn emotional intelligence skills
	Manager trains for special and technical skills to early career employees
	Training – structure courses per job – compulsory
	Global training, in-house and external training
	Leadership development, technical and soft skills (Emotional Intelligence) training
	Training – learning, experience, and knowledge coaching needed for career development
	General learning experiences

Table 3 continues →

TABLE 3 (Continues...): Talent management programme content.

Theme 3: Talent management programme	Excerpts from interviews
	Business schools' short courses
	Providing blended learning – formal learning, on-the-job training and coaching
	Talent must develop skills that are holistic
	Management development
	Graduate development
Performance management	Employees receive feedback on performance after every project
	Non-performer on performance improvement programme
	Well-structured performance management system
	Robust performance management – what is expected, what they must achieve, job specifications aligned to business goals, annual plans and strategic link
	Managers evaluate performance
	Performance management
	Give performance feedback and share areas needing development
	Create a mechanism to enhance performance
	Inspire people towards greatness
Placement, deployment and recruitment	Deployment – place people in right projects matching their skills and learning needs
	In recruiting and deploying, ensure experience, culture, values, diversity, knowledge fit
	Use a matrix to determine strength in competence and values
	Deployment – job description, global competencies
	Deployment – matching of strength of ability
	Analyse their capabilities – competencies – assessments
	Teaming dynamics to facilitate learning
	Talent Management – strength-based recruiting, deploying and engaging
	Find out people's strengths and allow them to capitalise on them
	Use people where they are really good and passionate
	Use a strength finder tool – influence, relationships and execution
Orientation	Induction/on-boarding/orientation – structured, high level, formalised content
	On-boarding – go to person/coach, walk and talk partner
	Orientation and induction
	A buddy system when on-boarding Induct them as brand ambassadors
	Intensive and structured induction
Engagement and retaining	Sense of job purpose – importance and how one adds value to bigger picture
	Contribution and purpose-driven job – meaningful work
	Offer value proposition – career, high performance
	Networking events – with guest speakers
	Exposure to senior leadership
	Attending professional conferences
	Conversation breakfast
	Internal and external functions
	Communication

TABLE 4: Information technology and systems.

Theme 4: Information technology and systems	Excerpts from interviews and sources
Theme: Information technology and systems	Rate of return on investing in talent is critical – analytics
	Talent management processes are driven by technology (sources)
Sub-theme: Information technology and systems	
E-recruitment	Analytics – forecasting people's needs and profiling of talent pool (skills)
E-learning	Tracking of training, competency development and assessments kept on the system
	Learning circles
	E-learning is utilised for compliance and compulsory training
	Learning assessments are tracked online for progress
	A scorecard is kept for training – indicating performance (all been trained)
	Online coaching and mentoring process
E-performance	Performance assessments are completed on the Human Resource Management system (sources)
E-succession planning	Software utilised to record succession plans and progress
Remuneration	Capture results on money spent on talent (salaries)
Social networking	Online service supporting coaching – virtual coaching
Data analytics and reporting	Reporting must be compiled to reflect statistics on attrition and diversity balance
	Retention statistics are critical – to assess if we recruit correctly
	Measuring business benefits related to Talent Management is critical
Talent data	Systems assist management to view data on workforce profiling, demographics, gender, talent pools (sources)
	Measure what is working and what is not working
	The data is reported on an Human Resource Management-integrated system
	There are updated people profiles and analytics
	There is high potential people reporting

TABLE 5: Organisational climate and culture.

Theme 5: Organisational climate	Excerpts from interviews and sources
Organisational climate (general)	No private offices – only open plan offices – creating a socially, open and vibrant climate
	Happy – not go to work and be miserable
	Happy – know I am needed and appreciated
	Happy – relationships at work
	Not a number – but a person – (humanness at work)
	Happy – caring for people culture
	Happy with person's ability and individuality
	Organisational climate is monitored through climate surveys
	Dimensions are work group relations, teaming, management engagement
	Job satisfaction
	Feedback on management
	Policy and structure (sources)
	Fair remuneration and benefits
	Motivation and engagement
	Open plan offices to encourage openness and teaming
	High technology environment
	Very relaxed style
	Technology is the key driver (sources)
	A prestigious brand makes a difference – people want to join the organisation
	Food subsidies – with the canteen
	Secure and beautiful environment
	Opportunity to travel overseas
	Technology that is top edge
	Technology driven
Sub-theme: Organisational climate	
Team-based	Flat organisation, people work on team-based projects
	Flat structure – team-based work projects
	Open plan office – social and open communication
	We work in teams – teaming dynamics are critical
	Team and building relations
	We work together to achieve
Communication	Knowledge sharing is a culture mostly in a team context (A1)
	Innovative communication – plasma screen (A3)
	People relate informally – communication
	Long hours, electronic mail is mode of communication

TABLE 5 (Continues...): Organisational climate and culture.

Theme 5: Organisational climate	Excerpts from interviews and sources
Leadership ethics	No micro management
	Honesty and transparency about performance and rewards
	Line manager – equipped with interpersonal skills
	Not political – unlike competitors
	Not hierarchical
	Leaders are visible and accessible
	Manager sits with teams in open plan offices – no private offices
	Not hierarchical and hung up on titles
	Leadership – approachable
	Quality of supervision
	No micro management (twice)
	Management style is open and straight talk
Diversity and inclusiveness	Managers are required to recruit diverse people
	Make diverse people feel comfortable and motivated
	Diversity – awareness created about other religions, cultures and practices
	Diversity – canteen caters for various dietary requirements
	Diversity and inclusiveness culture
	There is no gender bias in the environment
	A climate that is open to diversity of both race and gender is critical
	Diversity is a culture (multinational)
Wellness	Wellness counselling – talented experience stress, personal and social problems, conflict, work issues. We use an anonymous employee assistance programme
	Wellness – help with pressure management, as they work long hours (Employee Assistance Programme)
	Work-life balance is encouraged – programme to coach people to integrate work Better
	Employee assistance to enable – counselling, conflict and family management
	The organisation pays for employee counselling of up to six sessions
Flexible work hours	Flexible work – I have kids and family, raised them, and a career
	Accommodating personal wholeness – social and career – play golf
	Results driven not being present at work – flexibility – client not inconvenienced
	Flexible work arrangements are critical – as long as one performs
High performance culture	After every project employees are evaluated and receive performance feedback (communication)
	Career oriented and high performance culture
	Pay, productivity, strategy, rules
	Enablement to do the job
	Empowerment, technology and performance
	Culture is innovative and strongly performance driven
	It is an output-driven environment
	There is a high performance culture
Learning and development culture	We recognise people for learning and gaining knowledge (sources)
	A culture of learning, helping people to achieve
	Knowledge management – there is rich experience, knowledge, expertise
	Career development opportunities
	There are mainly knowledge workers (Information Technology specialists and sales)
	Being surrounded by knowledge experts in the field
Values	Talented undergo life circumstance changes (social/emotional) – we have an employee assistance programme
	Team relations – integrity, honesty, ethics are recognised
	There is trust and respect for people in the culture (sources)
	Personal crises accommodated
	Culture – right values, career driven, people who like people
	Respect is a core value

TABLE 6: Role players in talent management.

Theme 6: Role players	Excerpts from interviews and sources
Role players (general)	Management and Human Resource Management must be seen to build trust
	Managers and Human Resource Management play a role of communication with talented
	Human Resource Management and line management justify talent ratings
Sub-theme: Role players	
Line management	We rely on managers to coach, transfer knowledge and skills
	Managers are appraised on people leadership, motivating teams, coaching ability, delegating and knowledge sharing
	Managers ensure performance objectives are aligned to strategy

TABLE 6 (Continues...): Role players in talent management.

Theme 6: Role players	Excerpts from interviews and sources
	Line managers know their people and acknowledge them
	Line manager – interested in employee career development
	Line manager to focus on people and business results (sources)
	We rely on line managers to implement Talent Management
	Line managers are professional experts and have technical knowledge
	Line managers are required to meet regularly with high potential people
	Line managers to have career conversations
	Compile detailed action plans of developing people
	Line managers play a role in enabling talent to succeed
	Line management need to commit to the programme
	Line managers need to facilitate and support Talent Management programmes
	Management to empower people to do more
	Line manager to reward and recognise employees' achievements
Executives	Directors have regular career sessions with key talent (sources)
	Leadership – to invest time, experience, giving and coaching
	Executives must be people's people, one-on-ones
	Director buy in to Talent Management – the top must understand importance of Talent Management
	Executive can assist middle managers – experience training, coaching, support formal training to prepare for future roles
Human resource	Human resource Management trains all managers as counsellors – be able to coach, communicate and teach
	Human Resource Management to encourage people to use employee assistance programme
	Human Resource Management – work-life balance talks
	Human Resource Management – diversity awareness training, sensitivity, mutual respect
	Human Resource Management coaches – on people issues as they arise – interpersonal
	Human Resource Management communicates – gathers feedback on training reviews
	Human Resource Management activity must be integrated to talent management
	Human Resource Management is to provide a framework of how best people can be coached, engaged – a tool box for line management
Talented employee	Talented – are motivated, exceed performance expectations, demonstrate leadership and potential, ambitious, want to grab opportunities, career-minded, are self-directed
	Talented must also identify other talents they are responsible for
	Be top achievers
	Have emotional intelligence, humility and no arrogance
	Talent must achieve targets and perform and develop a balance between technical and interpersonal skills
	Talent to have good people skills
	Work on areas of development, receive coaching and mentoring
	Allow others to help in areas needing development

TABLE 7: Challenges in talent management.

Theme 7: Challenges in talent management	Excerpts from interviews and sources
Challenges (general)	Programme could be defined clearly, as to what it means and how to implement
	There are multiple initiatives to develop people but they are not labelled as talent management
	High potential risks – they handle business pressure, long hours, and do stretch projects – they should not be pushed beyond emotional capacity
	Managing conflict with team members is an issue to be managed
	Favouritism is not Talent Management – process must be fair and consistent
	Not much clarity in the standard and definition
	There is subjective evaluation of who is talent
	Talent is defined by personal filters
	Talent is ability, performance and aspiration – be able to measure that accurately
	Defining talent is not achieved
	Talent Management is a measure of intensity of what makes a difference between good to great – how do you measure that?
	The talent management programmes must be transparent
	The definition of Talent Management is critical in helping clarify why people are on the Talent Management programme (fast track, accelerated learning, access to executives, having a mentor)
	The issue of consistency around the talent pool changes
	Talented people are not known publicly in the organisation
	Talented desire to have public recognition as they work hard
	More openness is needed about the criteria for the programme
	Team moral
Sub-theme: Challenges in talent management	
Management commitment and buy in	Individuality – take into account people's needs, context, environment, culture and age
	Creating a clear policy – expectation and how

TABLE 7 (Continues...): Challenges in talent management.

Theme 7: Challenges in talent management	Excerpts from interviews and sources
	Do not box people
	Avoid hype and flavour of the month
	Executive focus should be on both people and business targets
	Development should not be an afterthought – but have a talent mindset in every business activity
	Time – executives and managers to track engagement of talented people
Financial support	Paying high remuneration is difficult for business affordability – expensive
	Competitor bonuses are hard to compete with for the company (sources)
	Line management is not rewarded enough for driving people agenda
	Line management is rewarded for business targets, not intangibles
	Structure too lean to focus on people issues – people are busy with tight schedules and work programmes
	Costs and budgets are an issue in implementing Talent Management
Time resource	Time and availability to counsellors (career and performance) as they are line managers, client facing
	Sustainable programme – financial, time, effectiveness, resource availability
	Time and availability are an issue in Talent Management
	It takes time to conduct career conversations, mentor, and track progress in addition to the roles
Capacity	Selling the employer branding both internally and externally
	Independent exit interview to know why talent leaves
	Transitioning in a promotion – emotional readiness issue to be resolved by support
	Talented may be challenged by their colleagues, social isolation of not being liked
	Hard to commit to career growth – economic cycles, change in market conditions
Politics	Human Resource Management value not appreciated
	Management not recognising value of Human Resource Management
	Human Resource Management to move from administration to value adding
	Human Resource Management strategic role is not yet tangible
	Human Resource Management to know the business – economics, information technology and finance
	Do not put people in boxes and clusters, manage an individual's uniqueness
	Balance of not alienating solid citizens – look after good performers too, and not only focus on high maintenance of the talented as solid citizens are needed
	Disclosing who is on a talent management programme is an issue
	Human Resource Management – custodian of Talent Management – often the profession in the organisation is not seen as talent (creates dissatisfaction)
	Talent management – only extended to functions which directly influence the bottom line – feelings of discontent could arise
	'Them' and 'us' conflict – those on Talent Management programme
Labour dynamics	Retention is a key issue – young people stay for 2 years, we want 5 years' service
	Shortage of African and coloured candidates – they are expensive (diversity)
	Retention of diversity candidates – poached by competitors for high pay
	Retention – yes people do get disgruntled in the jobs
	Not always possible to achieve a career plan

TABLE 8: Business case for talent management.

Theme 8: Business case for talent management	Excerpts from interviews and sources
Business case (general)	It is not just spending money on TM but an investment – (return)
	TM does add value – return may be calculated in performance, customer service, success of the business
Sub-theme: Business case for talent management	
Retention	Retaining already qualified Chartered Accountants is a challenge – if they leave we lose skills and knowledge
	Retention minimises turnover
	Talented ensure people supply, no need to replace, retrain and pay recruitment fees
	Illustrated a cycle of employee motivation through talent management
	Turnover of staff is reduced
	Retention is critical to proof against competitor poaching
	Retention secures continued and uninterrupted productivity
	The retention success saves the company – recruitment fees, time it takes to train the person before they can be productive
Sustainability	10% of talented are fast-tracked for future executive-ship – retain skill, future leaders, talent pool and pipeline (sources)
	Long-term sustainability of the business – talent pipeline and supply
	Succession planning and reflect on success
	Talented are future leaders and must be future focused, create opportunities for future stability of the company
	Talented to create competitive advantage (sources)
	Organisations need to spend money on the talented people
Financial	Talent management brings profit
	Talent management contributes directly to the bottom line

TABLE 8 (Continues...): Business case for talent management.

Theme 8: Business case for talent management	Excerpts from interviews and sources
	Talented people are high performers and their business performance is measurable on a scorecard
	They contribute to financial results, sales targets and profit
	Talented contribute to value add and growth
Productivity	Performance management is aligned to business goals (finance, sales, and customer relations). People are coached, trained to achieve business results
	Talent does work for our clients as we sell time, knowledge, service
	Talent management must be linked to strategy and support delivery of strategy
	Talent must improve the company, bring solutions, improve operations, quality and give back by performance
	Talented to take ownership of projects (sources)
	Outcomes of talent performance and contribution must be obvious
	Productivity and high performance
Quality work	Reason for Talent management is to capitalise on knowledge they acquire
	A value derived from Talent management must be defined and articulated (A1)
	The question is do we have knowledgeable and motivated people?
	Talent must be held accountable for investment in the programme
	In retaining talent you can retain your customers and profitability

by applying sophisticated measures relating to marketing and communication skills (see Table 9). In other words, talent management needs to be packaged attractively to appeal to the relevant audience.

Career life stages

The focus of this section (see Table 10) is to assess and determine talent management needs at various career life stages. In other words, what talent management interventions are needed for talent at various career life stages or cycles? This is extremely important as a blanket approach and one-glove-fits-all approach to talent management delivery must be avoided.

Discussion

The primary aim of the study was to develop a talent management framework for the private sector. The proposed talent management framework (based on constructs brought forward by research participants as well as information from the literature or documents) will be discussed next.

The proposed talent management framework

The proposed talent management framework is discussed in Figure 1.

The framework consists of the following:
- planning (consists of external environmental analysis, business strategy, talent strategy and talent success profile)
- dimensions of talent management (consists of attraction, sourcing and recruitment, deployment and transition, grow and develop, performance management, talent reviews, rewarding and recognition, engage and retain)
- implementation with reference to career stages (early career: Generation Y; mid-career: Generation X; late career: baby boomers)

- best practise enablers (consists of talent management communication tactics, internal organisational practices and information technology for talent management)
- role players (focuses on the responsibilities of human resources, talented candidates and leadership)
- evaluation of effectiveness (focuses on evaluating how talent management is being implemented in the organisation).

Planning

According to Robbins and Coulter (2010), planning involves the process of defining goals, establishing a strategy for achieving those goals and developing the plans to coordinate and integrate the activities:

- External environmental analysis: The organisation needs to be knowledgeable about external dynamics to allow change and adaption in order to stay abreast and survive in the dynamic and complex environment. Therefore, variables such as competition, business trends, markets and customer needs need to be continuously analysed.
- Business strategy: Once the organisation has analysed all the external variables, it can begin to devise an informed business strategy. This strategy defines the purpose and reason for being of the organisation, often expressed in the form of a vision, mission and values.

Talent strategy: The talent strategy only emerges from a firm knowledge of the overall business strategy, to ensure alignment. Where the organisation has articulated which markets, products and services they need to pursue, it is only then that a decision can be made about the type of skills, capabilities and core competencies required in order to drive strategy.

Talent success profile: The success profile provides a blueprint of the makeup and characteristics of talent in attitude, behaviour, actions, achievements and capability.

TABLE 9: Optimising talent management.

Theme 9: Optimising talent management	Excerpts from interviews
Optimising talent management (general)	Decide on what the business needs and future plans for talent
	By proper needs assessment for Talent Management programme the solution can be tailor-made
	Design and develop talent strategy Proper forecasting of talent needs and requirements
	Clear criteria on talent review process
	Create credibility through criteria of the process
	Ensure that there is diversity in the programme
	Do not put people in a box
	Work hard on ensuring career advancement and good management to retain talent Paying market-related salaries is critical
	Psychometric assessment may be utilised to provide accurate identification of potential
	Social networks are critical – to discuss current business problems and topics
	Sharing of work/business learning is critical
	Having guest speakers to address the talented on a specific topic
Sub-theme: Optimising talent management	
Employer branding	Improve employer branding through recruiters
	Keep employer branding internally and externally – attraction issue
	Recruiters must sell the brand correctly
	Branding is critical both internally and externally – what people have
	Talent as brand ambassadors must advertise both internally and externally (role models)
	Improve internal firm's branding
	Employer branding must be consistent – internally and externally
Employee value proposition	Investing in bursary and educational development initiatives to develop African Chartered Accountants – talent pool creation
	We need to fix value proposition when recruiting
	Not sell what we think person wants to hear – value proposition
	Value proposition – know what the person wants, status, money, achievement or values
	Define culture – Employee value proposition purposes, people know what to look for
Sourcing and attraction	Recruiting – assessments are used – personality and cognitive
	Recruiting – by internal employee referrals – give bonus for successful recruiting
	Diversity and inclusiveness is critical
	Create and attract talent pools wanting to live the vision and are passionate
	Strategic leadership is required in attracting talent
Marketing and commun-ication in Human Resource Management	Too modest in marketing our organisation – need to improve image
	Branding – to sell culture – people-centric, nice people, family oriented, not arrogant, not snotty, tough managers but nice. We undersell our brand
	Selling and marketing – we miss out if we do not sell our people-oriented culture, interaction. Other companies are arrogant, stuck up and difficult
	Long-term liaison and relationship building with talent Use feedback on success of development programmes
Customer centricity	When recruiting be attentive to individual needs
	People are not a number – humanness in dealing with people is critical
	Recognise people are different Treat talented as you would treat a client
	Use a customer-centric model in dealing with employees
	Treat employees as you would customers
Climate assessments	People leave the organisation and then come back (good environment)
	Retention risk assessment by conversation with coaches
	Assess engagement – energy and drive to look forward to the job
	Engagement – emotional connectedness to the job
	Engagement – intention to stay – love the job, peers, company, pay
Continuous improvement	Create rich pools of talent
	Study best practices
	Talent Management must be measured, implemented and defined

Dimensions of talent management

Once the organisation decides on what talent strategies they are going to pursue, it becomes even more critical to develop action plans for implementation purposes. The process entails how activities will be carried out to support the plans.

Johnson et al. (2011) view implementation as a plan to translate the formulated strategy into workable strategies and tactics filtering down through the organisation. Robbins and Coulter (2010) indicated that implementation includes conveying the decisions and plans to those affected by it and getting their commitment to carry it out:

- Attraction: The ultimate aim of the attraction activity is to interest the external candidates and motivate them to join the organisation, while creating a long-term intention to retain and encourage their intention to

TABLE 10: Career life stages.

Theme 10: Career life cycles	Excerpts from interviews
Sub-theme: Career life cycles	
Early career	Early career – upon graduation may need money, vehicle finance – benefits scheme (A2)
	Early career talent needs structured learning interventions (A4)
	Coaching and guidance is critical
	Continuous training opportunity is critical as the young are curious about learning
	Involve the young in social responsibility projects
	Allow them to organise functions and team-building activities
	Allow flexi work time – upon delivery of performance
	Health and lifestyle centre subsidies as they are health conscious
	Remuneration is a huge issue
	Provide both work and fun
	Managers managing them must be open-minded and flexible
	Provide technology-driven work tools and equipment
	Give them technology-driven projects
	Utilise them in innovation, creative and interesting projects
Mid-career	At this stage they are driven by status, position and money
	Family and marriage are also a priority in some cases
	Remuneration is a key driver – pay competitively
	Assess their career expectations, goals and aspirations
	Provide opportunities for intense stretch goals
	Provide opportunities for them to be coaches and mentors
	Entrust them with challenging and big work assignments
	Provide networking opportunities
	Recognise success and projects done well
	Provide overseas opportunities or leading a business unit
	Executive development opportunities
Late career	Late career talent can contribute by sharing knowledge and experience with the young and inexperienced
	Late career – the programme focuses on young people because they can leave
	Late career – are ignored as they tend to be loyal
	Late career – could contribute by becoming coaches and mentors A4)
	Utilise aging workforce as consultants and business advisors
	Ease off the pressure, goals and time
	They have knowledge and can be advisors
	Recognise their wisdom contribution
	There will be no preferences due to age (B4)
	If we had aging workforce, they would be treated the same way (B1)

stay with the organisation. The same rigour that is applied to marketing and selling products and services must be applied in marketing and advertising the employer brand and value proposition for current and future employees. Social media may be utilised as a tool to communicate, do the marketing and build the employer branding concept (Robbins & Coulter, 2010).

- Sourcing and recruitment: There is a big opportunity for companies to use the internet and social media for sourcing talent and managing the recruitment processes of job profiling, advertising of vacancies and managing of job applications. Technology tools are now readily available to remove and eliminate tedious, old and lengthy paper-driven processes of recruitment (Robbins & Coulter, 2010).

- Deployment and transition: The purpose of this dimension is to ensure that the new recruits become familiar with the new organisation where they are employed quickly, through a socialisation process. Furthermore, the employees can effectively transition into the new role whether it is an internal transfer, a new recruit or a recent promotion. At this early stage, the new recruit can be strongly influenced to form a positive image and

good impressions about the organisation. It is also recommended that a social mentor be appointed for the new recruit in order to assist with manoeuvering through the organisation in dealing with offbeat, difficult people, politics and sociocultural nuances (Johnson et al., 2011).

- Performance management: Performance management is a vital part of the process of development and the identification of talent. It is a fully participative process in goal and objective setting in alignment with the interpretation of the business strategy. The communication and giving of feedback constitute the leading ingredients of performance management, which leads to continuous improvement in the organisation. This participative communication is between the employee and the immediate supervisor or line manager (Caplan, 2011).

- Grow and develop: Training is beneficial only when it is linked to the overall business goals and it supports the achievement of business objectives like improving quality, increasing productivity and improving customer service; otherwise, training becomes an expensive hobby for the organisation. Line management, in collaboration with human resource or talent management specialists, may design learning and development programmes
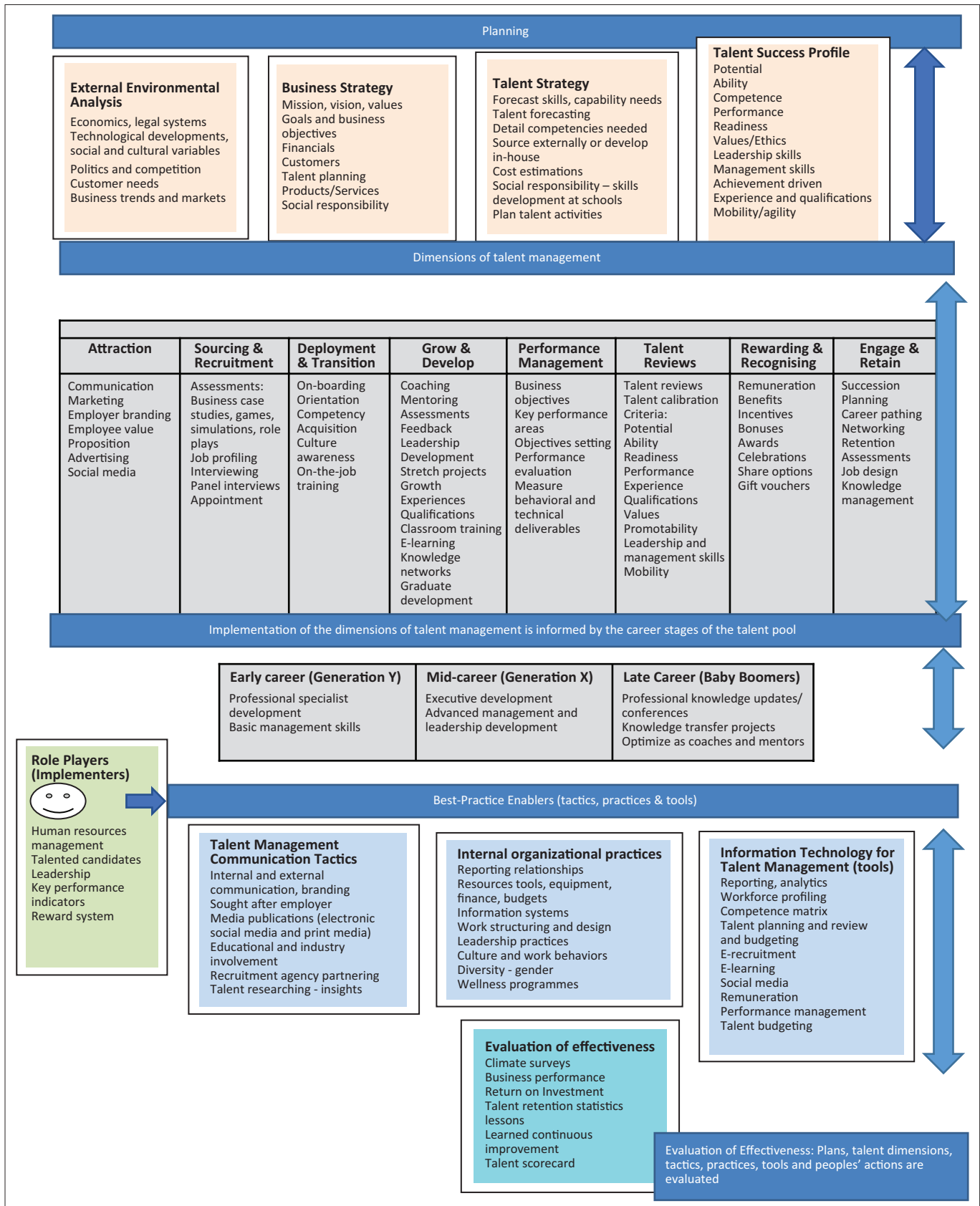
FIGURE 1: A talent management framework for the private sector.

which address the knowledge and skills needed currently and in the future by the organisation, for example, graduate development programmes (Li & Bryan, 2010).

• Rewarding and recognising: Importantly, remuneration strategies have to be tied to overall business objectives. The business rightly pushes for high performance in

areas of financial performance, increased sales, cost-saving initiatives and customer satisfaction. When the objectives and targets are achieved, the high performers who contributed to the success have to be rewarded and recognised according to their value add (Caplan, 2011).

- Engage and retain: Successful retention of the employees is really determined by how engaged the employees are with the job, role and the overall organisational activities. In order to determine factors which enhance employee engagement, the employer needs to run an assessment and get input from the employees about the matter. A blend of financial rewards, with creation of a sense of purpose and meaning about the job, giving direction, communication and fair human resources practices, improves engagement substantially. Career pathing, succession planning and management are important in improving both retention and employee engagement (Li & Bryan, 2010).

- Talent reviews: Talent reviews usually constitute a meeting between human resources and senior management to discuss all matters relating to talent management. The conversations are structured around overall high performance and high potential (capability to grow into a senior role) of individuals in the talent pool. Furthermore, individuals admitted to the talent pool must have relevant experience, qualifications, outstanding performance track record and demonstrable capability and potential to be promoted to a senior or highly critical role within a specified timeframe (Caplan, 2011).

Implementation of the dimensions of talent management

In implementing talent management dimensions across the organisations in various functions, managers and human resources need to be aware of the needs and characteristics of specific talent pools in relation to their career life stages:

- Early career stages: Focus on intensive and structures learning interventions to support professional specialist development and growth. Job design and structuring of work should allow working in highly interactive teams and intensive use of new technology.

- Mid-career stage: Relevant leadership development interventions should be provided focusing on executive development, advanced management and leadership development programmes to support succession and career path planning. Create meaningful and purpose-driven work and careers.

- Late career stage: Provide counselling to help employees to prepare for retirement. Reduce the involvement in projects requiring an investment in long hours.

Best practice enablers

In order to improve the implementation of talent management projects, the following can be looked at:

- Talent management communication tactics: It is important to communicate the purpose of the talent management programme to all the stakeholders clearly when making it known. This will create openness and acceptance. Ways of communication can include company magazines, updates on intranet, posters, video clips, communication forums, meetings, social media, suggestion boxes and focus groups.

- Internal organisational practices: Efforts should be made to develop a people-oriented culture which focuses on individual success, and where technology is integrated into the work processes. Diversity should be valued and innovation and continuous improvement should be welcomed. Wellness programmes should be implemented and financial resources should be made available to successfully initiate and implement talent management programmes. Reporting relationships must be managed professionally, ethically and fairly. Much responsibility is placed on the direct supervisor to create healthy ways of relating to employees. Talent management information systems are critical in supporting the alignment, coordination and integration of the entire talent management process from start to end. The use of the system may vary from data input, electronic filing and information processing to providing management reporting and data analytics.

Role players

Role players are the key stakeholders in the business who are responsible for the development, planning, implementation and improvement of talent management projects in the organisation:

- Management: Line managers are directly responsible for identifying, selecting and recommending the high potential and high performing talented employees in their teams to become part of the official talent management pool.

- Talent pools: Talented employees have an active role to play in order to ensure that they have acquired the necessary skills, knowledge and experience to assist their career growth aspirations.

- Leadership: Organisational leaders are solely responsible for developing strategic initiatives which drive the business, and ensure that it is cascaded to the implementers. These strategic initiatives include giving direction to human resource leadership in aligning talent management strategies and tactics with that of the business.

- Human resources: Human resources is responsible for developing the talent strategy in line with the business strategy, as well as guiding management and the leadership team in applying the tools, systems and processes of talent management.

Evaluation of the effectiveness of talent management

Talent management needs to be evaluated against a set of criteria in order to track success as well as areas needing improvements. Measures for testing the effectiveness of talent management are through monitoring talent retention statistics and acquiring lessons or narrations for the state of statistics. The evaluation may be used as a basis for continuous improvement.

Practical implications

Role players are the key stakeholders in the business who are responsible for the development, planning, implementation and improvement of talent management projects in the organisation. It is therefore critical to set key performance indicators for all the role players which pertain to talent management activities, and set reward systems which encourage strong performance.

Management

Line managers are directly responsible for identifying, selecting and recommending the high potential and high performing talented employees in their teams to become part of the official talent management pool. They have a much greater responsibility in the recruitment, supporting, on-boarding and induction to new roles, managing performance and identification of learning and development needs. Retention of employees is highly influenced by the quality of direct line management, as employees interact frequently with the direct line manager. To the employee, the immediate line manager creates the impressions about the company culture, values and practices. Line management needs to assume responsibility and accountability for the outcomes of managing talent in their respective units and departments. Career and succession planning, coaching, communication and feedback to the employee are to be carried out continuously by the direct manager with the employee in a professional, open and honest manner.

Talent pools

Talented employees have an active role to play in order to ensure that they acquire necessary skills, knowledge and experience to assist their career growth aspirations. They have to be agile, flexible and mobile in their approaches to work and conduct. Furthermore, talented employees need to partake in stretch projects, management and leadership development programmes and must travel to some extent. Continued high performance is important as it will ensure them a place in the talent pool, as well as career growth.

Leadership

Organisational leaders are solely responsible for developing strategic initiatives which drive the business, and ensure that it is cascaded to the implementers. These strategic initiatives include giving direction to human resource leadership in aligning talent management strategies and tactics with that of the business. Furthermore, the leadership team needs to hold management accountable for the delivery of talent management initiatives. Leadership has to ensure that talent management strategies are effective, support the business objectives and add value to the business imperatives. If the leadership is not involved actively in being a sponsor of talent management initiatives, the talent management practices will not take priority in the organisation – it will just be one of those human resources activities.

Human resource

The senior human resource executive (from the Human Resource Management Department) is responsible for developing the talent strategy in line with the business strategy, as well as guiding management and the leadership team in applying the tools, systems and processes of talent management. Human resources executives will most likely lead and facilitate the talent review meetings and conduct audits in the organisation to drive the implementation of talent management dimensions and tactical plans. It is a human resource deliverable to procure assessment tools and information systems, to monitor culture, to improve the employer brand and to champion talent-centric practices in the organisation. Talent-centric practices are reward programmes, the creation of a healthy work environment, learning and growth initiatives, and so on (Caplan, 2011).

Organisations need to go as far as allocating talent management activities, tasks and deliverables to the performance management process in the form of key performance indicators. When the talent management key performance indicators are met, the role players must be rewarded to support and reinforce commitment and implementation.

Limitations of the study

The limitations of the study are mainly because of the purposive non-probability sampling method used. Consequently, the sampling method does not allow for generalisation of the findings to the general population (Thomas, 2006).

Furthermore, it would have been preferred to include a much bigger and broader sample (participants) and more cases (companies in the private sector), but this was not possible. The study is not rendered invalid and insufficient because of the elements stated above. With the few participants and two cases consulted in the study, the researcher has managed to collect comprehensive and detailed data, referred to as 'thick' descriptions. During the interviews and the data analysis process, the researcher realised and confirmed data saturation and sufficiency, as concepts, themes and patterns were repeated by the participants.

Recommendations for future research

Anecdotally, it is known that talent management is a valuable best practice to have in an organisation. It would be of substantial value to have a set, defined, specific and consistent formulae to calculate the real economic value of investing in talent management activities quantitatively. Often, the investment in certain assets or finances spent in business activities is justified by possible financial and economic benefits that might be realised, and these financial returns are easy to track. Therefore, the practice of talent management will benefit from the ability to report on the actual economic value realised. This capability will improve buy in and a willingness to invest in high-quality talent management initiatives and resources.

Conclusion

In conclusion, the dimensions of talent management were identified and developed. The delivered talent management framework will guide and support the elevation of talent management practices in organisations in the private sector. The framework is comprehensive enough to cover all key and core dimensions of talent management practice. Ultimately, the framework is developed in such a way that it can lead to best practice.

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Factors that influence employee perceptions about performance management at Statistics South Africa

Authors:
Maria Sachane[1]
Adéle Bezuidenhout[2]
Chris Botha[1]

Affiliations:
[1]Department of People Management and Development, Tshwane University of Technology, South Africa

[2]Department of Human Resource Management, University of South Africa, South Africa

Corresponding author:
Maria Sachane,
marias@statssa.gov.za

Orientation: The implementation of performance management (PM) in the public sector remains a challenge and requires an investigation into employees' perception of PM at Statistics South Africa.

Research purpose: This study investigates the factors that affect employee performance at Statistics South Africa with the aim of providing a management framework for improving the performance of employees.

Motivation for the study: The motivation for this study was to identify factors that affect employees' perception of PM at Statistics South Africa. By ascertaining these factors, it may be possible to influence the performance of employees positively.

Research approach/design and method: The study followed a quantitative research approach using an explorative and descriptive design. The population consisted of 3326 employees. The random sample drawn contained 444 respondents, and the realised sample had 303 respondents. This represented a response rate of 68%. Data were collected through a Likert-scale-type questionnaire.

Main findings: The results showed that employees perceived PM as ineffective and unfair. Various factors affecting PM at Statistics South Africa negatively were revealed. The analysis of the research identified the following performance factors: communication, talent management, retention, recruitment and selection, engagement and motivation.

Practical/managerial implications: The findings revealed that employees were not involved in the development and the implementation of PM. Managers and supervisors who are not committed to the PM of their subordinates avoid performance contracting and the conducting of performance reviews. Managers should be encouraged to give feedback to employees and to see PM as a development tool, rather than a compliance matter.

Contribution/value-add: The research study contributes to the understanding of the perception of employees of Statistics South Africa regarding the factors that positively or negatively affect the PM process.

Introduction

This study focuses on the factors that influence the perception of performance management (PM) at Statistics South Africa with the aim of providing a management framework for improving the performance of employees. Performance management combines and coordinates an organisation's efforts to grow or become more efficient by motivating employees through evaluation, development, reward and promotion (Watkins & Leigh, 2010, p. 99). According to Castello (1994, p. 6), when employees are clear about what is expected of them, and have the necessary support to contribute to an organisation efficiently and productively, their sense of purpose, self-worth and motivation will increase. As the majority of employees in Statistics South Africa, who have not entered into performance agreements, may be uncertain whether they are performing in terms of the expectations of their jobs, this will impact negatively on the organisational performance. By entering into a performance agreement will help the supervisors and team members within Statistics South Africa to set performance standards and measure the achievements in terms of these set standards.

This article reports on a study conducted among employees of Statistics South Africa to measure the impact of PM. Six factors, namely communication, motivation, retention, recruitment and selection, engagement and talent management were used to measure the PM in this study. The study highlights how these variables influence performance positively or negatively.

The objectives of this study are, firstly, to determine those factors that impact positively or negatively on PM at Statistics South Africa. Secondly, the study aims to verify how various demographic groups differ in terms of their perception of PM at Statistics South Africa. Thirdly, the article aims to make conclusions and recommendations on employee perceptions of PM at Statistics South Africa.

This study contributes to the effectiveness of PM by providing a theoretical framework of the factors that influence the effectiveness of PM of employees at Statistics South Africa.

Research questions

The research questions included the following:

- What are the factors that impact on PM at Statistics South Africa?
- How do various demographic groups compare in terms of their perception of PM at Statistics South Africa?
- What conclusions and recommendations can be made on employee perceptions of PM at Statistics South Africa?

Current trends in the literature

Performance management arrived in the latter part of the 1980s, partly as a reaction to the negative experience of merit rating and management by objectives. Its strength is that it is essentially an integrated approach to managing performance on a continuous basis. The appeal of PM in its authentic form is that it is holistic. It pervades every aspect of running the business and helps to give purpose and meaning to those involved in achieving organisational success (Armstrong, 2009, p. 25).

According to Koontz as quoted by Armstrong (2009, pp. 10–11), the first known example of performance appraisal took place during the Wei Dynasty (AD 221–65) when the emperor employed an 'imperial rater' whose task was to evaluate the performance of the official family. In the 16th century, Ignatius Loyola established a system for formal rating of the members of the Jesuit society. The first formal monitoring systems, however, evolved out of the work of Frederick Taylor and his followers before the First World War.

Management by objectives then came into being during the 1960s, while the term PM was first used in the 1970s. Performance management has emerged, from the 1990s onwards, as an integral part of the human resource management approach to managing an organisation (Fletcher, 2004, p. 31).

Performance management has become more popular as total quality management programmes emphasised using all the management tools, including performance appraisal. It involves the strategic use of performance measures and standards, and aims to establish performance targets and goals and to improve the effectiveness and efficiency of the organisation (Chen, 2011, p. 33).

Performance management is a critical aspect of organisational effectiveness, yet it is considered the 'Achilles heel' of human capital management and should therefore be a top priority of managers. Less than one-third of employees believe that their company's PM process assists them in improving their performance. Performance management regularly ranks among the lowest topics in employee satisfaction surveys (Gruman & Sack, 2010, p. 1).

Performance management places key emphasis on improving organisational performance. Putting less emphasis on input and process control, its proponents argue that performance should be the guiding concept in organisational decision-making, routines and structures and that strategic planning and performance evaluation should be promoted. The PM model is often represented as a cyclical process in which management focuses primarily on defining organisational goals, setting performance targets and subsequently holding employees accountable. This process is then repeated possibly with adjustments in goals, targets or performance indicators reflecting the experiences of previous cycles (Nielsen, 2018, p. 431). Asamany and Shaorong (2018, p. 57) define PM as a planned and cohesive approach to deliver continuous success to organisations by improving the performance of the employees, by considering the capabilities of teams and individual contributions.

Leonard (2010, p. 342) defines PM as all those things a supervisor must do to enable an employee to achieve prescribed objectives. The above statement is supported by Brown and Steward (2009, p. 284) who mention that PM is the process of measuring, assessing, providing feedback and communicating about employees' contribution to the organisation. From the literature studied, it can thus be deduced that measuring performance and providing feedback does indeed improve employee performance.

Performance management forms part of a more comprehensive organisation development approach, referred to as the PM system (PMS). Ferreira and Otley (2009) state that the term 'PMS' refers to:

> formal and informal mechanisms, processes, systems, and networks used by organisations for conveying the key objectives and goals elicited by management, for assisting the strategic process and ongoing management through analysis, planning, measurement, control, rewarding, and broadly managing performance, and for supporting and facilitating organizational learning and change. (p. 264)

Performance management system thus refers to broad, over-all, ongoing processes including formal practices, procedures processes and systems, as well as the informal actions and procedures. The focus of this study was specifically on PM which can be seen as an important element of the PMS.

In most organisations, nationally and internationally, the PM cycle is a process that stretches over a 12-month period during which performance is planned, executed and assessed. In Statistics South Africa, it must be aligned to the organisation's annual business plan, which is from 1st April to 31st March of the following year. The 12-month cycle is

also linked to the financial year for the purpose of planning, pay progression and other performance-related incentives such as performance awards or cash bonuses. The probation cycle, however, is linked to the appointment date of a jobholder (Department of Public Service & Administration, 2007, p. 11; Department of Statistics South Africa, 2003, p. 6).

Williams (2002, p. 16) and the Department of Public Service and Administration (2007, p. 11) identify factors that are closely related to the PM cycle in the South African context, such as (1) performance planning and agreement, (2) performance monitoring, developing and control and (3) performance appraisal. These factors are explained as follow:

- The *performance agreement* is the cornerstone of PM at the individual level. All employees must enter into and sign performance agreements before the end of the first quarter of the new cycle. The performance agreement format applies to all levels (salary levels 1–16) in the Department of Statistics South Africa and the contents must reflect the department's strategic and annual operation plan, business plans and job descriptions, job roles and actual activities and responsibilities (Department of Public Service and Administration, 2007, p. 11).
- Individual performance must continuously be monitored to enable the identification of performance barriers and changes and to address development and improvement needs as they arise as well as to determine progress and/or identify obstacles in achieving objectives and targets (Department of Public Service and Administration, 2007, p. 15).
- *Performance appraisal* begins by identifying objectives, recognising the benefits for all concerned, and identifying key criteria (Arthur, 2008). It is a process that is commonly used throughout many organisations to evaluate or appraise employee's performance in the past and to consider how to maximise the employee's future contributions (Banfield & Kay, 2012, p. 295). Unfortunately, employees often have doubt about the accuracy of their performance appraisals (Decenzo & Robbins, 2002, p. 280). Swan and Wilson (2007, pp. 21–27) identified a number of reasons of why performance appraisal fail, including inadequately defined standards of performance, an overemphasis on recent performance, reliance on gut feelings, without evidence, an employee's miscomprehension of performance expectations, insufficient performance documentation, inadequate time for the discussion and the lack of a follow-up plan. Further distortions that may affect the review are illustrated in Figure 1 by Decenzo and Robbins (2002, p. 281).

Performance standards are the ways the organisation goes about meeting its mission statement. These may include ethical values and levels of quality (Sandler & Keefe, 2005, p. 10). Furthermore, Rampersad (2003, pp. 83–85) mentions that a performance target is a quantitative aim of performance measurement. It indicates a value that must be met. He mentions that targets can be based on the expectations of management, the needs of the customers or the results of
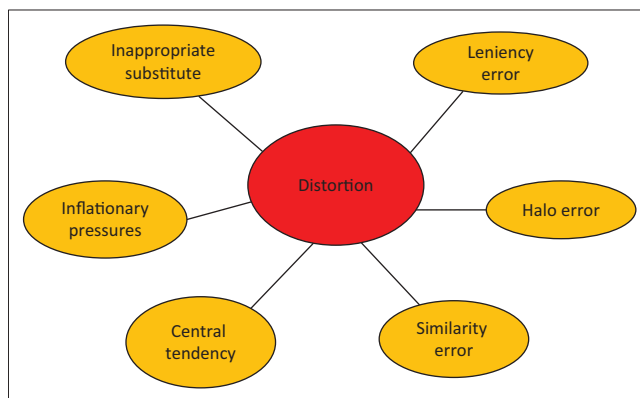
Source: Decenzo, D. A., & Robbins, S. P. (2002). *Human resource management* (7th ed.). USA: John Wiley. p. 281

FIGURE 1: Factors that distort appraisals.

benchmark studies. This would both provide management with timely signals that are based on the focused guidance of the organisation according to measurements of change and a comparison of measured results against standards.

Based on a careful revision of the theory available, the researchers have identified the specific factors that may affect PM at Statistics South Africa. These identified factors formed the basis of the questionnaire that was developed and are explained below:

- *Communication:* Erasmus-Kritzinger, Bowler and Goliath (2002, p. 3) define communication as a two-way process whereby information (message) is sent from one person (sender) through a channel to another (receiver) who, in turn, reacts by providing feedback. Fyffe (2007, p. 18) supports this notion and explains that communication is a reciprocal process, establishing a dialogue with people in the business, and often results in a better solution that helps to get early engagement and interest in what one is introducing. Leonard (2010, p. 342) emphasises the importance of communicating how well an employee is performing a job, during the PM effort. Silber and Foshay (2010, pp. 412–413) further explain that many PM efforts fail because of poorly managed relationships, including poor communication, between the different stakeholders.
- *Talent management* is needed for success, effectiveness and consistency. Talent is considered the most critical source of success in an organisation (Phillips & Edwards, 2009, p. 3). Silzer and Dowell (2010, p. 13) mention that talent in an organisation refers to an individual's skills and abilities (talents) and what the person is capable of doing or contributing to the organisation. Carey, Grobler, Holland and Warnich (2008, p. 128) explain that talent management, which involves the cooperation and communication of managers at all levels, has become an imperative in today's business world. The components of talent management include extensive new employee orientation, use of selection and rewards to align employees with company values, formal management development programmes, careful succession planning and Chief Executive Officer (CEO) selection, investment in human capabilities through recruiting, training and development (Silzer & Dowell, 2010, p. 5).

- *Recruitment and selection:* Martel (2002, pp. 77–78) believes that recruiting and hiring are the most critical practices for finding and keeping high performers. The author further mentions that recruiting and retaining good employees have demonstrably measurable results and also mean important cost savings.
- *Assessment:* Reynolds and Welner (2009, p. 35) explain that when used properly, an organisation has much to gain by incorporating assessment into their talent programmes.
- *Training and development:* According to Byars and Rue (2008, p. 154), training is the learning process that involves the acquisition of the knowledge, skills and abilities (KSA) necessary to successfully perform a job.
- *Retention:* Phillips and Edwards (2009, p. 27) define retention as the percentage of employees remaining in the organisation. They explain that high levels of retention are desired in most job groups.
- *Reward management*: Milne (2007, p. 30) mentions that recognition is a non-financial award given to employees selectively, in appreciation of a high level of accomplishment that is not dependent on achievement against a given target. According to Zhou, Zhang and Montoro-Sanchez (2011, p. 82), reward management is a key function in human resource management systems in modern enterprises, playing an important role in attracting, retaining and motivating employees.
- *Engagement:* According to Wiley (2010, p. 47), organisations that want to be successful need motivated and engaged employees. Federman (2009, p. 22) defines employee engagement as the degree to which a person commits to an organisation and the impact that commitment has on how well they perform and their length of tenure. Wiley (2010) postulates that a critical element in building confidence, motivating performance and increasing employee engagement is having managers who inspire belief in the organisation's future. He further states that organisations that want to achieve business success need motivated and engaged employees. Managers need to build a culture of motivated employees who are working to achieve business goals.

Method

Research approach

A deductive, quantitative-descriptive approach was adopted to examine the impact of PM on employee's performance in Statistics South Africa. This type of research involves identifying the characteristics of an observed phenomenon (Saunders, Lewis, & Thornhill, 2009, p. 155). A cross-sectional survey design was used to gather primary data from the participants to achieve the objectives of the study. Descriptive research examines a situation as it is. It does not involve changing or modifying the situation under investigation, nor is it intended to determine cause-and-effect relationships (Babbie, 2011, p. 95).

Research design

Research participants

As this study examines the impact of factors affecting the employee performance, the employees of Statistics South Africa have been taken as a target population. Simple random sampling was used to select the study subjects from a list of names as this improves the reliability and generalisability of statistical results. According to Blair and Blair (2015, p. 11), probability sampling employs a random process to ensure that each element has the same, known, non-zero chance of selection. The entire population consisted of 3326 elements. The selected sample contained 444 units. In total 444 questionnaires were distributed to both male and female respondents and 303 completed responses were received back. This represents a response rate of 68%.

Measuring instruments

A questionnaire was compiled based on the theoretical framework, compiled from a close scrutiny of the literature. The questionnaire contained a five-point Likert-type scale instrument, with values ranging from 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree) to 5 (strongly agree) to measure responses. The questionnaire was divided into two sections, namely: Section A required biographic information such as age, gender, language, designation, education, employment and years of service. Section B contained questions in relation to factors affecting PM at Statistics South Africa. The survey consisted of the following factors: talent management, engagement, recruitment and selection, retention, motivation and communication. There were five questions posed in relation to each factor (sub-dimension) and therefore a total of 30 questions were posed to the respondents.

Research procedure

Permission was obtained from the Statistician-General of Statistics South Africa to distribute the questionnaire to the targeted population. Each questionnaire was accompanied by a covering letter, explaining the purpose of the study, promising confidentiality and voluntary participation, the importance of participation, potential benefits and contact information. The questionnaire was distributed electronically via a link, to those employees who were stationed at head office, as well as those stationed at provincial offices.

Data analysis

The Statistical Package for Social Sciences (SPSS) version 20.0 was employed for the data analysis. Descriptive analysis includes frequencies and percentages, and reliability tests include Cronbach's alpha (Bouwan & Ling, 2006, p. 38; Ho, 2006, p. 26). Furthermore, factor analysis was applied to discover patterns among the variations in values of several variables. Pearson's chi-square was used to test the statistical significance (Curtis & Curtis, 2011, p. 157) with the *p*-value of the chi-square test, specifically with regard to demographical variables.

The factors that emerged are demonstrated in Table 1.

TABLE 1: Rotated factor pattern of the factor analysis.

Rotated factor pattern	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
'There is communication channels in my organisation.'	0.802	-	-	-	-	-	-
'I can to share meaning through communication.'	0.782	-	-	-	-	-	-
Employees always receive feedback.'	0.770	-	-	-	-	-	-
'I feel at liberty to communicate with management.'	0.704	-	-	-	-	-	-
'At work, my opinions seem to count.'	0.644	-	-	-	-	-	-
'My organisation communicates about change management.'	0.549	-	-	-	-	-	-
'I am satisfied with my organisation.	0.475	-	-	-	-	-	-
'HRM provides information relating to talent.'	-	0.793	-	-	-	-	-
'A rotation process exists to rotated talent.'	-	0.752	-	-	-	-	-
'Talent management system attracts talent.'	-	0.719	-	-	-	-	-
'Natural talents have been assessed.'	-	0.579	-	-	-	-	-
'Rotation process to rotate talents.'	-	-	0.747	-	-	-	-
'Management contributes to retention of employees.'	-	-	0.738	-	-	-	-
'My organisation is aware that the employee turnover impacts negatively on its service delivery.'	-	-	0.681	-	-	-	-
'My organisation's PM reviews and rewards are effective for employee retention.'	-	-	0.596	-	-	-	-
'Job-related questions were posed during the interview.'	-	-	-	0.764	-	-	-
'I believe that R&S policy at Statistics South Africa is clear.'	-	-	-	0.661	-	-	-
'The advert gave the information I needed about the position.'	-	-	-	0.653	-	-	-
'I did receive acknowledgement of receipt of my application.'	-	-	-	0.518	-	-	-
'I believe that HRM provides good service.'	-	-	-	0.439	-	-	-
'My colleagues work equally as hard as I do.'	-	-	-	-	0.721	-	-
'My fellow employees are committed to doing quality work.'	-	-	-	-	0.691	-	-
'I feel remuneration is always motivating.'	-	-	-	-	0.486	-	-
'I know what is expected of me at work.	-	-	-	-	-	0.755	-
'I feel I do my job up to standard.'	-	-	-	-	-	0.490	-
'In the last 7 days, I have received recognition or praise.'	-	-	-	-	-	-	0.643
'I use my natural talents daily by doing what I do best.'	-	-	-	-	-	-	0.551
'My supervisor encourages my self-development and learning.'	-	-	-	-	-	-	0.510

PM, performance management; R&S, recruitment and selection; HRM, human resource management.

TABLE 2: Cronbach's alpha for six factors affecting performance management at Statistics South Africa.

Factor	Scale	Cronbach's alpha based on standardised items	No. of items
Factor 1	Communication	0.885	5
Factor 2	Talent management	0.834	5
Factor 3	Retention	0.819	5
Factor 4	Recruitment and selection	0.750	5
Factor 5	Engagement	0.768	5
Factor 6	Motivation	0.714	5

As one of the seven initial factors had only two items loading on it (the initial factor 6), it was not retained. As a rule of thumb, there should be at least three items loading on a factor for meaning interpretations to be made (Walsh, 1990). As a result, the final factor analysis above shows that factor 1 represents communication, factor 2 represents talent management, factor 3 represents retention, factor 4 represents recruitment and selection, factor 5 represents engagement and factor 6 represents motivation. In addition to the factor analysis, the Cronbach's alpha statistics for each of the six factors affecting PM at Statistics South Africa were calculated and are presented in Table 2.

The empirical results in Table 2 confirmed the reliability of each of the six retained factors, as all the Cronbach's alpha values were above 0.7. The empirical results thus confirmed that the factors that affect PM at Statistics South Africa are communication, talent management, retention, recruitment and selection, engagement and motivation. Furthermore, the total variance, explained by each factor, was calculated and is presented in Table 3.

From Table 3, it is noteworthy that communication accounted for the most variance, talent management second most and retention the third most variance in explaining PM at Statistics South Africa.

The Pearson chi-squire statistics, as calculated for the demographical variables, are presented in Table 4.

The results in Table 4 present the results of the Pearson correlation analysis across different demographic groups. Likelihood ratios as well as linear-by-linear associations were calculated for each item, but for the sake of parsimony, the results are summarised in Table 4. In summary, the results of the statistical analysis showed that different age groups experience similarities in their attitudes towards communication, talent management, retention, engagement and motivation. The genders experience similarities towards the variables recruitment, selection and retention. Employees with different educational levels experience similarities in their attitudes towards engagement, retention and motivation. Different employment classes experience similarities in relation to talent management system, engagement and motivation. Employees with different years of service experience similarities towards talent management, retention and communication.

Discussion

The first research question was concerned with identifying the factors that affect PM at Statistics South Africa. Six factors

TABLE 3: Total variance explained by each factor.

Factor 1: Communication	Factor 2: Talent management	Factor 3: Retention	Factor 4: Recruitment and selection	Factor 5: Engagement	Factor 6: Motivation
5.0920825	3.1284030	2.8346709	2.3723304	1.9961577	1.7350634

TABLE 4: Pearson correlations in terms of demographical variables.

Pearson chi-square	Value†	Df	Asymp. sig. (2-sided)
Age	28.949	16	0.024
Gender	12.540	4	0.014
Highest qualification completed	45.170	28	0.021
Employment classes	48.959	28	0.008
Years of service	62.673	28	0.000

†, Cronbach alpha.

Asymp. sig., asymptotic significance (p-value); Df, degrees of freedom.

that play a role in employees' perception of PM emerged, namely communication, talent management, retention, recruitment and selection, engagement and motivation. In addition, the empirical study confirmed the reliability of each of these the factors.

The empirical results thus supported the view of Leonard (2010) and Silber and Foshay (2010) that communication is a very important element of PM. As it emerged as the most important factor, it is reasonable to assume that a lack of feedback during PM will have an adverse effect on the acceptance and the success of PM at Statistics South Africa. Furthermore, it is the responsibility of the manager to clearly communicate expectations in the form of performance standards and targets to subordinates. Regular, continuous feedback throughout the period of assessment is essential to improve employee performance and to provide the recognition that will motivate employees to sustain satisfactory performance. Managers have to work continuously at maintaining reciprocal communication channels (Fyffe, 2007), because in order for the performance review and feedback process to work well, there must be a two-way communication process and dialogue, which is the responsibility of both managers and employees, jointly.

As talent is considered the most critical source of success in an organisation (Phillips & Edwards, 2009), and this study identified talent management as the second most important factor, it can be concluded that talent management is imperative to the PM effort at Statistics South Africa. Managers need to focus on individuals' skills, abilities and talents. Furthermore, successful talent management is impossible without effective communication. There is thus an interaction process between the individual factors at play. The same is true for recruitment and selection, which is integral to talent management interventions, as well as the retention of high performing employees (Martel, 2002). Retaining talented, high performing employees, promote retention of critical skills and organisational performance. The findings of this study supported Wiley's (2010) belief that successful PM practices depend on retaining motivated and engaged employees. By recognising the efforts of high performing employees and clearly communicating the trust

in them during PM discussions, managers have the ability to motivate, inspire and retain valuable human capital. The first research question, pertaining to the identification of perceived PM factors at Statistics South Africa, was thus addressed comprehensively.

The second research question sought to investigate how various demographic groups compare in terms of their perception of PM at Statistics South Africa. It is noteworthy that there are many similarities in the way different demographical groups perceive the factors that affect PM at Statistics South Africa. If the first factor, communication, is considered, the empirical results showed that employees of different ages, genders, educational levels and years of service all perceived communication to be an important determinant of PM. The second factor, talent management, was perceived similarly among the employees of different age groups, genders, employment classes and years of service. Also, the third factor, retention, was perceived in the same way by different ages, genders, educational levels, employment classes and years of service. It is encouraging that the results seem to indicate that employees are perceiving PM at Statistics South Africa the same, across different demographic groups, as it may be an indication that all employees are fairly treated in the same manner.

Some of the exceptions that were identified included a discovery that employees indicated a lack of confidence in their prospects of promotion within Statistics South Africa. This may be a contributing factor in the negative perception by respondents towards PM, where the age group 30–39 felt that superior work performance is not recognised. In this study, it was also discovered that employees from the age groups 30–39 and 40–49 felt that the economic climate affects their satisfaction with their salary level to a higher extent, compared to their counterparts. This may be an example of extrinsic motivation, referring to performance that is contingent upon the attainment of an outcome that is separable from the action itself (Legault, 2016, p. 1). Lastly, employees from the age group 40–49 felt more positive about the materials and equipment to do their work effectively and were also more satisfied with the retention process at Statistics South Africa.

The third aim of this article was to make conclusions and recommendations on employees' perception of PM at Statistics South Africa. Based on the human resource management literature reviewed and the empirical results obtained, the following recommendations are made:

• As the results of this study emphasised the importance of communication, managers must focus on providing clear communication on performance expectations and goals. Employees also need continuous constructive feedback on their performance, so that they can adjust their performance as needed informed. Critical decisions and instructions should be communicated timeously to

promote transparency and keep employees motivated and engaged.

- Performance management as a development tool rather than a compliance matter. When PM is used as a tool to develop employees, it encourages staff motivation by exploring alternative remuneration and reward systems that complement the organisation's traditional rewards.
- Considering the importance of talent management, identified as the second most influential factor in PM at Statistics South Africa, managers must incorporate career management conversations in the PM process. The implementation of the talent management strategy should be fast tracked. Human resource practitioners should encourage job rotation, job shadowing and mentoring programmes to enhance the experience and exposure of high-performance employees at Statistics South Africa. High performing staff can also be considered for secondment to other divisions or departments to gain experience and exposure.
- This study confirmed the importance of fair recruitment and selection practices as a factor in determining employees' perception of the success of PM. Recruitment and selection should be transparent, fair and open in order to motivate internal employees to continuously improve their performance.
- Although not all good performances can be rewarded through promotion, an effective remuneration strategy can introduce other forms of recognition of superior performance. An example could be a 'staff awards day' where high performing employees are publicly commended and recognised by the Head of Department. Certificates and small cash awards can be given with clear citations of the reason for the award. This could address both the motivation and employee engagement factors that determine employee's perception of PM. If employees understand what is expected, invest effort in improving their performance and then receive recognition, their perception of PM will improve.

Practical implications

This study has identified significant factors that affect employee's performance at Statistics South Africa. The findings of this research show that management people are not committed to their PM of their subordinate. This weakness about the lack of participation for the employees should be addressed to ensure that employees perceive the PM process as fair.

Limitations

Limited prior research findings on employees' perception of PM at Statistics South Africa were available. A self-report questionnaire was used and the answers were dependent on employees' memories. The sample was influenced by some employees being on maternity and vacation leave.

Recommendations

The results of this study revealed the positive and negative factors affecting PM in Statistics South Africa. These factors need to be addressed to ensure a gradual sustainable progress in improving the performance of employees within Statistics South Africa. Further research can be conducted in the following areas:

- This investigation can be expanded by doing research at other government departments.
- The perception of employees of PM within Statistics South Africa is in a broader perspective.
- Further research is needed to validate these results in a few government departments.

Conclusion

The study has identified unique factors that affect PM at Statistics South Africa. It was therefore concluded that:

- Most of the employees within Statistics South Africa believe that talent management is a challenge. This is an area which the management of Statistics South Africa should address. Statistics South Africa should introduce a system that will be able to attract the competent employee in order to avoid staff turnover.
- More than half of the employees maintain that there is no job rotation process in Statistics South Africa. It can be concluded that the majority of the respondents within Statistics South Africa believe that there is no job rotation process in the organisation, which is a concern that the organisation should address.
- Nearly half of the employees responded negatively regarding information related to a talent management system. This may be regarded as a negative response that reveals that the human resource processes regarding talent management are not clear to the employees. This is an area in which management must ensure that they conduct workshops with their employees to create an awareness of the policies that affect employees within the organisation.
- Some employees claim that their abilities are not assessed by the organisation. Management fails to implement a retention policy and strategy.
- A perceived lack of positive contributions from management towards the retention of employees within the organisation exists. Some employees responded that the organisation's performance reviews and rewards are not effective. Opportunities for promotion are not adequate. Further to that, employees do not receive recognition for doing good work. There is a lack of feedback from management.

Acknowledgements

Competing interests

Authors' contributions

M.S. was the principal investigator responsible for the fieldwork. A.B. and C.B. were involved in helping to design and supervise the project.

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Psychological capital as a moderator in the relationship between occupational stress and organisational citizenship behaviour among Nigerian graduate employees

Authors:
John K. Aderibigbe[1] ⓘ
Themba Q. Mjoli[1] ⓘ

Affiliations:
[1]Department of Industrial Psychology, University of Fort Hare, South Africa

Corresponding author:
John Aderibigbe,
johnaderibigbe1@gmail.com

Orientation: It is a documented fact that occupational stress is widespread worldwide. Moreover, there are clear signs of many variables that affect Nigerian graduate employees, which are most likely to cause severe occupational stress, and this, in turn, could negatively affect employees and their organisational ability to demonstrate citizenship behaviour.

Research purpose: The purpose of this study was twofold: firstly, to examine the nature of relationship between occupational stress and organisational citizenship behaviour, and, secondly, to investigate whether psychological capital significantly moderates the relationship between occupational stress and organisational citizenship behaviour.

Motivation for the study: The study was conducted to demonstrate whether the presence of psychological capital could result in a better level of employee performance, even as employees experience a certain level of occupational stress. In view of the above, the study might have contributed to form a new model of psychological intervention for occupational stress and organisational citizenship behaviour.

Research approach/design and method: The study adopted the positivist explanatory cross-sectional (survey) research design to systematically sample opinions of 1532 male and female graduate employees across various sectors of the Nigerian economy, using a structured and validated questionnaire and the Statistical Package for the Social Sciences (SPSS) software.

Main findings: The results showed that there was a weak positive relationship between occupational stress and organisational citizenship behaviour. Psychological capital significantly moderated the relationship between occupational stress and organisational citizenship behaviour.

Practical/managerial implications: Human resource managers should develop psychological capital in employees in order to increase the level of organisational performance and reduce the negative impact of occupational stress.

Contribution/value-add: Recommendations of the study could assist in training and developing effective workforce capacity towards improving the economy of the nation.

Introduction

Scholars have linked challenges that are related to employee performance in current employment with high levels of occupational stress (Baxter, 2010; Laschinger, 2011; Shafaghat, Zarchi, & Kavosi, 2018). In the same manner, studies have shown that occupational stress is significantly related to both task-related work behaviour and non-task-related work behaviour of employees (Adebiyi, 2013; Arogundade & Lawal, 2016; Niks, de Jonge, Gevers, & Houtman, 2018). The World Health Organization (WHO) has also reported occupational stress as a global epidemic (WHO, 2010). Obviously, the consequence of an increasingly strenuous work environment is evident in Nigerian work settings, as cases of job dissatisfaction, a high rate of absenteeism, employee intention to quit, labour turnover and poor job performance (contrast to organisational citizenship behaviour) remain evident among graduate employees in Nigeria (Adebayo & Ogunsina, 2011; Adebiyi, 2013; Adetayo, Ajani, & Olabisi, 2014; Arogundade & Lawal, 2016).

So far, broad studies over the years have centred on identifying the stressors (Brynien & Igoe, 2016; Paillé, 2011). The literature further reveals that most studies conducted on occupational stress have concentrated on determinants, as opposed to results, such as employee performance,

turnover intention, turnover behaviour and employee productivity (American Psychological Association, 2013; Goh, Pfeffer, & Zenios, 2015). Hence, few scientific investigations have been conducted to devise psychological intervention strategies to ameliorate the situation and ensure organisational citizenship behaviour (Ahmad, Hussain, Saleem, Qureshi, & Mufti, 2015; Niks et al. 2018). Furthermore, although there is an increasing consideration of the phenomenon of organisational citizenship behaviour by researchers, a thorough review of the literature shows a lack of agreement about the scope of the concept (Farzianpour, Foroushani, Kamjoo, & Hosseini, 2011). However, the current study sought to empirically examine the moderating role of psychological capital (PsyCap) in the relationship between occupational stress and organisational citizenship behaviour in order to fill the existing vacuum identified in the literature.

Research purpose

The purpose of the study is twofold. Firstly, the study seeks to examine the nature of relationship between occupational stress and organisational citizenship behaviour. Secondly, the study seeks to investigate if there is a significant moderating role of PsyCap in the relationship between occupational stress and organisational citizenship behaviour.

Literature review

Organisational citizenship behaviour

Organisational citizenship behaviour is an essential phenomenon in the formal work setting because of its potency to facilitate interpersonal relationships among employees, and also to increase organisational performance (Kumari & Thapliyal, 2017; Pradhan, Jena, & Bhattacharya, 2016). Organisational citizenship behaviour is an alternative form of performance behaviour, which is differentiated from the traditional performance that relies heavily on official assignments and tasks (Karolidis, 2016). For instance, having subordinates who are highly engaged in organisational citizenship may improve managers' efficiency by allowing them to devote a greater amount of time to long-range planning matters. Hence, managers, employees and the organisations at large benefit from the positive behaviours (Lelei, Chepkwony, & Ambrose, 2016; Nawazi & Gomes, 2018). These behaviours are explained by concepts such as pro-social behaviours, extra-role behaviours, contextual performance, spontaneous behaviours or organisational citizenship behaviour.

Occupational stress

Occupational stress is a negative career-related concept that generates concerns among career holders, and it has the ability to influence individual and organisational outcomes (Beheshtifar & Nazarian, 2013). In other words, occupational stress is a negative phenomenon, the occurrence of which often stimulates an unpleasant response to the work environment making it appear threatening to the employees. Moreover, prolonged occupational stress could manifest

itself physically, emotionally and psychologically in the lives of the affected employees.

The commonly reported physical symptom of occupational stress is a headache, which makes the affected employees unconsciously tense in their necks, foreheads and shoulder muscles (Chandra & Parvez, 2016). The other known symptoms of occupation stress are digestive problems, ulcers, hypertension, anxiety and inordinate sweating, coronary illness, strokes and even male pattern baldness (Chandra & Parvez, 2016). Emotionally, an affected employee frequently displays nervousness, outrage, depression, fractiousness, frustration to ordinary issues, dementia and an absence of focus for any assignment, because the mind of the individual is negatively impacted. The psychological manifestations of occupational stress, on the other hand, include withdrawal from society, phobias, compulsive behaviours, eating disorders and night fears (Chandra & Parvez, 2016).

Psychological capital

The term 'PsyCap' is a composite construct that is defined according to Luthans, Avolio, Avey and Norman (2007) as:

> a person's positive mental state of improvement, which is described by: (1) having confidence (self-efficacy) to take on and put in the needed effort so as to prosper at challenging responsibilities; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) determining toward goals and, when necessary, diverting ways to objectives (hope) with a specific end goal to succeed; and (4) when affected by issues and afflictions, managing, enduring and even going past (resilience) to reach success. (p. 3)

According to Aliyev and Tunc (2015), PsyCap is a collection of abilities such as self-efficacy, optimism and endurance that are open to improvement, and it implies more than the collection of the aforementioned skills.

Specifically, capital signifies the quality of individuals' assets (human capital) as well as in connection with other constructs such as social capital, cultural capital and intellectual capital (Amunkete, 2015). The term 'PsyCap' also denotes individual motivational inclinations that accumulate through desirable psychological concepts such as optimism, resilience, hope and efficacy (Luthans et al., 2007). Besides, PsyCap is recognised in the situation of a venture in psychic resources that results in getting realistic incentives from the current moment while also brightening the prospect of future benefits. It is about the condition of the segment of an individual's inner life (Amunkete, 2015).

Relationship between occupational stress and organisational citizenship behaviour

In a recent descriptive correlational study (Nourani, Kohansal, Esmaily, & Hooshmand, 2016) on the relationship between organisational citizenship behaviour and occupational stress among 122 midwives at Mashhad, Iran, it was found that there is a significant negative association between organisational citizenship behaviour and occupational stress. Likewise, Arogundade and Lawal (2016) investigated

the influence of perceived occupational stress on the organisational citizenship behaviour among 300 male and female bankers in Lagos, Nigeria, using a simple random sampling technique. Although the results of the study revealed that there is no significant difference in the levels of organisational citizenship behaviour that were exhibited by bankers with higher stress levels and those with lower stress levels, there is an inverse relationship between occupational stress and organisational citizenship behaviour.

Moreover, Soo and Ali (2016) studied the linkage between occupational stress and organisational citizenship behaviour among a sample of 472 bankers in Malaysia and found that there is a significant negative impact of occupational stress on organisational citizenship behaviour. In the same vein, Gregory, Yitzhak and Steffen (2016) scientifically examined the proposed need to distinguish between self-initiated and organisationally imposed overload in studies of work stress, using three samples, which consisted of 116 male and female full-time employed students in three countries, some nursing staff of six private hospitals in Switzerland and 161 middle manager-supervisor dyads in Switzerland. The study revealed in its findings that self-initiated imposed overload is significantly, positively related to organisational citizenship behaviour, but organisationally imposed overload is not a significant predictor of organisational citizenship behaviour.

Furthermore, Ikonne and Madukoma (2016) conducted a survey on the relationship among organisational citizenship behaviour, job stress and satisfaction among 109 librarians in some selected universities around the south-west region of Nigeria and found that there is a significant negative relationship between organisational citizenship behaviour and job stress. In addition, Uzonwanne (2014) conducted a survey research on depression, anxiety and stress as correlates of organisational citizenship behaviour, using the accidental sampling technique to sample 151 female and 149 male employees of oil and gas companies in Ogun State, Nigeria. The outcomes of their research showed that there is a significant positive relationship between occupational stress and organisational citizenship behaviour. The findings of the study also indicated that although there was a statistical positive relationship between the two variables, the observed positive relationship was weak considering the r value of 0.118, which is close to 0.

Psychological capital as a moderator in the relationship between occupational stress and organisational citizenship behaviour

Aybas and Acar (2017) surveyed the mediating and moderating roles of PsyCap in the effects of opportunity enhancing human resource (HR) practices and working conditions on work engagement among 555 white-collar employees of private companies from different sectors in Turkey by using a convenience sampling method and a validated questionnaire and sampled the views of respondents about the variables under consideration in the study. The results of the statistical analysis of data showed that PsyCap partially moderated and mediated the effects of opportunity enhancing HR practices and working conditions on work engagement.

Likewise, Wang, Liu, Zou, Hao and Wu (2017) conducted a cross-sectional survey research that investigated the mediating role of PsyCap on occupational stress, organisational support and work engagement among a sample of 1016 female nurses that was drawn from the population of nurses in the general hospitals in Shenyang, Liaoning Province, China. A validated questionnaire was used to collect data from all the participants in the study. The research findings showed that PsyCap and its components of hope and optimism are significant mediators of the relationships among work stress, work engagement and rewards.

In addition, Shaheen, Bukhari and Adil (2016) surveyed the moderating role of PsyCap in the relationship between organisational support and organisational citizenship behaviour among a sample of 325 employees in public and private sector banks of Islamabad and Rawalpindi cities in Pakistan by using a convenience sampling technique and a validated questionnaire to gather information from the participants. The study discovered and established from its findings that PsyCap significantly enhanced the observed positive relationship between organisational support and organisational citizenship behaviour.

Correspondingly, Li et al. (2015) studied the mediating role of PsyCap on the association between occupational stress and burnout among a sample of 1239 male and female bankers drawn from the population of bankers in the state-owned banks in Liaoning in China by using a random sampling technique. The study adopted a cross-sectional survey research design and used a validated questionnaire to collect data from the participants. The findings of the study indicated that PsyCap is generally a mediator between occupational stress and job burnout among Chinese bank employees.

Conceptual model

Based on the past studies reviewed and on logical grounds, a conceptual model was developed indicating the hypothesised relationship between occupational stress and organisational citizenship behaviour, and the moderating role of PsyCap. Organisational citizenship behaviour is depicted as the dependent variable, while occupational stress is the independent variable, whereas PsyCap is shown as the moderating variable. The conceptual model, demonstrated in Figure 1, indicates the moderating role of PsyCap in the

FIGURE 1: Psychological capital as a moderator of the relationship between occupational stress and organisational citizenship behaviour.

relationship between occupational stress and organisational citizenship behaviour.

Statement of hypotheses

Hypothesis 1

H_0: Occupational stress is not significantly positively correlated with organisational citizenship behaviour.

H_1: Occupational stress is significantly positively correlated with organisational citizenship behaviour.

Hypothesis 2

H_0: Psychological capital is not a significant moderator of the relationship between occupational stress and organisational citizenship behaviour.

H_1: Psychological capital is a significant moderator of the relationship between occupational stress and organisational citizenship behaviour.

Research methodology

Research design, sample and procedure

The study adopted a positivist explanatory cross-sectional (survey) research design. The explanatory cross-sectional (survey) research was considered appropriate for the study because the research used the positivist approach by means of quantitative data generation and hypotheses testing (Bhattacherjee, 2012). The chosen research design was also considered appropriate in the study because the study cut across the private and public sectors of the national economy, and thus incorporated diverse industries.

The stratify type of probability (two-stage North Carolina Center for Public Health Preparedness' [2013] sampling scheme) technique was adopted along with the Research Advisor's (2006) sample size calculation table, and used in calculating the appropriate sample size of the study. According to the Federal Ministry of Women Affairs and Social Development (2008), there were a total number of 40 567 978 male and female employees across industries in Nigeria as of 2007. In applying the stratify sampling method as recommended by the North Carolina Center for Public Health Preparedness, 10% of 40 567 978 was calculated at the first stage, which reduced the number to 4 056 797. Again, at the second stage, 10% of 4 056 797 was calculated. Consequently, the result further reduced the number to 405 679. Nevertheless, at this point, the researchers subjected the derived figure of 405 679 to the recommendation of the Research Advisor (2006), which approves a sample size of 1532 (at 95% level of confidence and 2.5% margin of error) out of an approximate population of 500 000 for a national survey. Hence, the researchers were 95% confident of the population sampled being a true representation of the study's targeted population. Thus, a total of 1532 male and female graduate employees formed the sample size of the study.

In addition, the convenience and purposive types of non-probability sampling technique were employed in selecting participants for the study. Firstly, the convenience sampling technique was applied in selecting three most suitable states (Oyo, Osun and Lagos States) out of the 36 states in Nigeria, as the sites of the field work. The rationale for selecting the three states is that each of them houses one or the other of the renowned public and private universities (University of Ibadan, Obafemi Awolowo University and the Pan-Atlantic University) where the study samples were offered part-time postgraduate admissions for MBA programmes as working-class postgraduate students with a minimum of 3-year employment experience. Another reason for adopting the convenience sampling technique was because the fieldwork became easier when the participants were met in groups at conducive places such as in the lecture rooms and relaxation centres within the university premises. Furthermore, as the study was designed only for the graduate employees, the purposive sampling technique was also introduced and applied to ensure that participants in the study were employed during the period of the field work, and that they were graduates of universities and polytechnics.

The sample consisted of 916 (60%) male and 616 (40%) female graduate employees from 19 sectors of the Nigerian economy. Among the participants, 202 (13.2%) were graduate employees from the educational sector, 38 (2.5%) from the research institutes, 51 (3.3%) from the transportation sector, 291 (19%) from the finance and insurance sector, 83 (5.4%) from the fast-moving consumer goods (FMCGs) industry, 21 (1.4%) from the commercial sector, 70 (4.6%) from the healthcare sector, 8 (0.5%) from the aviation sector, 77 (5.0%) from the agricultural sector and 57 (3.7%) from the information technology sector. All participants were Nigerians English speakers. The participants' ages ranged from 20 to 65 years old. Relatively, 974 (63.6%) of the participants were senior staff, while the remaining 558 (36.4%) were junior staff. Conclusively, among the participants, 730 (47.7%) were employed by the government, while the remaining 802 (52.3%) were working under the employment of private organisations.

Data were collected by means of paper–pencil inventories (structured validated questionnaires), which were distributed to employees in the large lecture auditoriums during their weekend (Saturdays) part-time professional postgraduate programmes, in the three renowned public and private universities (University of Ibadan, Obafemi Awolowo University and the Pan-Atlantic University), situated in Oyo, Osun and Lagos states of Nigeria.

Measuring instruments

Three established scales of measurement were used to assess PsyCap, occupational stress and organisational citizenship behaviour.

Psychological capital

A 24-item scale of PsyCap that was developed and validated by Luthans et al. (2007) was utilised to measure PsyCap.

The construct consisted of self-efficacy, hope-state, optimism-state and resilience-state sub-scales, with a five-point Likert-type response format ranging from 1 (strongly disagree) to 5 (strongly agree). The authors reported a Cronbach's alpha coefficient score of 0.91 for the scale. However, the outcome of the pilot factor analysis of this study reduced the scale item to 21, and yielded Cronbach's alpha coefficient scores of 0.88 (self-efficacy), 0.91 (hope), 0.85 (resilience), 0.67 (optimism) and 0.94 for the whole scale of psychological capital, while the main study's factor analysis yielded a Cronbach's alpha coefficient score of 0.85 for the whole scale of PsyCap (See Appendices 1–3 for details).

Occupational stress

A nine-item scale of job stress that was developed and validated by Jamal and Baba (1992) was utilised to measure occupational stress. The measure was designed with a five-point Likert-type response format ranging from 1 (strongly disagree) to 5 (strongly agree). The authors reported a Cronbach's alpha coefficient score of 0.83 for the scale. However, the outcome of the pilot factor analysis of this study reduced the scale item to seven and yielded Cronbach's alpha coefficient score of 0.81, while the main study's factor analysis yielded a Cronbach's alpha coefficient score of 0.80 for the measure of occupational stress (See appendices 1–3 for details).

Organisational citizenship behaviour

A 15-item modified version of Podsakoff, Mackenzie, Moorman and Fetter's (1990) organisational citizenship behaviour questionnaire by Argentero, Cortese and Ferretti (2008) was utilised to measure organisational citizenship behaviour. The construct consisted of altruism, conscientiousness and civic virtue sub-scales, with a five-point Likert-type response format ranging from 1 (Strongly disagree) to 5 (Strongly agree). Argentero et al. (2008) reported the following Cronbach's alpha coefficients for the scale: altruism = 0.81, conscientiousness = 0.73, civic virtue = 0.73 and 0.84 for the whole scale of organisational citizenship behaviour. However, the outcome of the pilot factor analysis of this study reduced the scale item to 13, and yielded Cronbach's alpha coefficients of 0.88 (altruism), 0.81 (conscientiousness), 0.86 (civic virtue) and 0.93 for the whole scale of organisational citizenship behaviour, while the main study's factor analysis yielded a Cronbach's alpha coefficient score of 0.82 for the whole scale of organisational citizenship behaviour (See appendices 1–3 for details).

Statistical analysis of data

The data generated from 1532 screened questionnaires were analysed based on the hypotheses stated, using version 20 of the Statistical Package for the Social Sciences (SPSS). Hypothesis 1 was analysed, using Pearson correlation analysis. Hypothesis 2 was analysed using multiple regression analysis, while the percentage, mean, standard deviation (SD) and the frequency of the biographical and occupational data were determined by the descriptive statistics.

Ethical consideration

Voluntary participation in the study was sought through a letter of consent, signed by each of the participants. The participants were informed about the importance of the study as the findings of the study may positively influence the government policy helping in improving their conditions of employment and service. Moreover, assurance was given to the participants with respect to confidentiality of all information supplied. Furthermore, the participants were instructed not to indicate any means of identification such as name, identity number and organisational affiliation. With utmost sense of sincerity, information concerning the study and its outcomes was accurately submitted to the appropriate institutions. Thus, it was ensured that no instances of misleading actions were demonstrated in the course of the study. The researchers also ensured that the study was conducted in a conducive environment such that it would not expose the participants to any physical or psychological hazard. The Research Ethics Committee of University of Fort Hare granted approval for ethical clearance of the study (certificate reference number: MJO071SADE01).

Research results

The results in Table 1 show the levels at which the participants possessed each of the variables of consideration in the study. For instance, the results of descriptive statistics show that the participants demonstrated a higher level of PsyCap, $\bar{X} = 60.482$, $SD = 8.493$. The results imply that the participants in the study are positively oriented about themselves.

Similarly, the results in Table 1 show that participants expressed a high level of organisational citizenship behaviour $\bar{X} = 52.389$, $SD = 6.949$), which also indicates that the participants are highly interested in helping their colleagues at work, at the same time ensuring that their personal and organisational goals are achieved. Likewise, the results in Table 1 further show that the participants expressed a significant amount of occupational stress ($\bar{X} = 24.354$, $SD = 5.402$). The results mean that the participants have experienced some amount of occupational stress.

TABLE 1: Descriptive analysis showing the mean and standard deviation among organisational citizenship behaviour, the three dimensions of organisational citizenship behaviour, psychological capital, the four dimensions of psychological capital and occupational stress.

Variable	N	$\bar{X}$	SD
Psychological capital	1532	60.4817	8.49292
Occupational stress	1532	24.3544	5.40185
Organisational citizenship behaviour	1532	52.3890	6.94911
Self-efficacy (PsyCap)	1532	20.3845	3.54578
Hope (PsyCap)	1532	20.5281	3.40532
Resilience (PsyCap)	1532	15.3544	2.59459
Optimism (PsyCap)	1532	8.0424	1.65358
Altruism (OCB)	1532	20.0020	3.25440
Conscientiousness (OCB)	1532	11.8035	1.97103
Civic virtue (OCB)	1532	20.5836	3.17756
Valid N (list wise)	1532	-	-

OCB, organisational citizenship behaviour; N, number; SD, standard deviation; $\bar{X}$, sample mean; PsyCap, psychological capital.

The results further reveal that the participants expressed significantly higher levels of civic virtue ($\bar{X}$ = 20.584, SD = 3.178), hope ($\bar{X}$ = 20.528, SD = 3.405), self-efficacy ($\bar{X}$ = 20.385, SD = 3.546), altruism ($\bar{X}$ = 20.002, SD = 3.254), resilience ($\bar{X}$ = 15.354, SD = 2.595), conscientiousness ($\bar{X}$ = 11.804, SD = 1.971) and optimism ($\bar{X}$ = 8.042, SD = 1.653).

Hypothesis 1 was analysed by using Pearson's correlation analysis. The results of the analysis are presented in Table 2.

The data in Table 2 show that there is a positive relationship between OS and OCB (r = 0.070, p = 0.01). Even though there is a positive relationship observed between OS and OCB, the level of the observed positive relationship between the two aforementioned variables is feeble, considering the given significance value, 0.006 = 0.01 (approximated to two decimal points), which is exactly the maximum limit of acceptable value of significance at the 0.01 level (2-tailed). Therefore, based on the results and interpretations above, Hypothesis 1, H_0, is rejected, while Hypothesis 1, H_1, is accepted. Figure 2 depicts the relationship between OS and OCB.

The results in Table 3 show that PsyCap is a significant moderator of the relationship between OS and organisational citizenship behaviour, $F(2.1529)$ = 8.514; R^2 = 0.011; p < 0.01. The results also indicate that occupational stress independently influences organisational citizenship behaviour (β = 0.070; t = 2.738; p < 0.05). However, when compared the beta value obtained from the direct influence of occupation stress (β = 0.070) with that of the moderating influence of PsyCap (β = 0.064) in the relationship between OS and organisational citizenship behaviour, the result indicates that PsyCap demonstrated a significant moderating influence in the observed relationship between OS and OCB by significantly reducing the undesirable direct influence of occupation stress on organisational citizenship behaviour.

The results in Table 3 further show that the moderating role of PsyCap accounts for only 1% of the total variance in the relationship between OS and OCB. It thus implies that many other factors that were not considered in the study could be responsible for the remaining 99% variance in the relationship between OS and OCB. Although the R value, on the other hand, is higher (0.105), which if considered, it implies that PsyCap accounts for as much as 10% of the total variance in the relationship between OS and OCB, but it is not as reliable as the R^2 value even though it looks greater, because the statistical principle of regression theory emphasizes the fact that only the R^2 guarantees error-free values. In view of the above results and its interpretations, Hypothesis 2, H_0, is rejected, while the H_1 is accepted. Figure 3 depicts the picture of PsyCap moderating the relationship between OS and organisational citizenship behaviour.

Discussion

The results presented established the hypothesised relationship and moderation in the conceptual model (Figure 1). A weak positive relationship was found existing between OS and OCB. This explains that though there is an indication of a positive relationship between OS and OCB, but the observed level of positive relationship between the two variables is not reliable enough. Thus, perhaps, it requires the introduction of one or more other positive variables to serve as moderators or mediators in order to yield a more significant and reliable relationship. These findings corroborate the reports of Uzonwanne (2014), which states that there is a weak positive relationship between OS and OCB. Similarly, Soo and Ali (2016) report further that self-initiated imposed work overload is significantly, positively related to organisational citizenship behaviour, but organisationally imposed overload is not a significant predictor of organisational citizenship behaviour.

In terms of moderation, PsyCap was found to have a significant level of moderating role in the observed positive relationship between OS and OCB. Although the results

TABLE 2: Summary of Pearson's correlation analysis showing the relationship between occupational stress and organisational citizenship behaviour.

Variable	OCB	OS
OCB	**1**	**0.070†**
Sig. (2-tailed)	-	0.006
N	1532	1532
OS	**0.070†**	**1**
Sig. (2-tailed)	0.006	-
N	1532	1532

OCB, organisational citizenship behaviour; OS, occupational stress; Sig, significance; N, number.

†, Correlation is significant at the 0.01 level (2-tailed).

TABLE 3: Summary of multiple regression analysis showing the moderating role of psychological capital in the relationship between occupational stress and organisational citizenship behaviour.

Variable	R	R^2	β	T	F	P
Occupational stress (OS)	-	-	0.070	2.738	-	0.006
Psychological capital with Occupational stress	0.105	0.011	0.064	2.490	8.514	0.000

Note: Hypothesis 2 was analysed by using multiple regression analysis. The results of the analysis are presented in Table 3.

*, Correlation is significant at the 0.01 level (2-tailed).

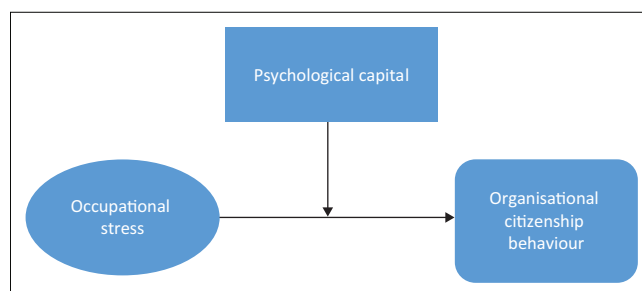**FIGURE 2:** Relationship between occupational stress and organisational citizenship behaviour.
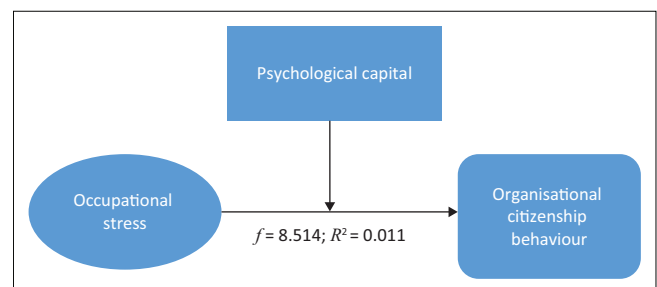
FIGURE 3: Psychological capital as a moderator of the relationship between occupational stress and organisational citizenship behaviour.

show that there are many other variables or factors, which are of a similar nature with PsyCap, and could have also moderated the relationship between OS and organisational citizenship behaviour, but were not considered in the structured model. The observed results are supported by the findings of Aybas and Acar (2017), which show that PsyCap partially moderated and mediated the effects of opportunity enhancing HR practices and working conditions on work engagement. Similarly, Wang et al. (2017) reported that PsyCap and its components of hope and optimism are significant mediators of the relationships among work stress, work engagement and rewards.

Limitations of the study and suggestions for future research

The first noticeable shortcoming of this research relates to bias in the approach of data collection. The research only adopted the quantitative method, which limited the opinions of research respondents to the response options provided to statements in the questionnaire. This study therefore suggests that future studies should consider adopting more than one method of data collection. The second acknowledged limitation of this study is that only one moderating variable was considered in the structured model.

Recommendations

In view of the above discussion of the findings, the researchers make the following practical recommendations:

- The tertiary institutions' management, most especially of the universities, should incorporate in their academic curricula some practical simulated work exercise that will pre-expose the graduating students to the challenges at the world of work. This will build their psyche and make them mentally and emotionally ready to overcome any stressful situation that may come in their way, even in the cause of discharging of career duties or responsibilities through the positivism approach. This can be achieved by a deliberate inclusion of moderately difficult practical group assignments in the syllabus that will task each student in a group to proactively think 'outside the box' and proffer visible solutions in the form of suggestions to the problems at hand. By so doing, the students will develop reasonable levels of hope, resilience, optimism, self-efficacy and empathy along with the acquired theoretical knowledge of their disciplines, while the universities can also boast of producing capable graduates who will fit perfectly into the realities of the world of work and promptly deliver.
- The model of relationship between OS and organisational citizenship behaviour, propounded in this study, should be adopted and applied by teachers, lecturers, seminar facilitators, workshop trainers, supervisors and managers during their coaching or training sessions. Specifically, the focus should be on training the individual employees or graduates to discover their covert behavioural endowments such as PsyCap and make them refined through a systematic training process that converts the covert behavioural gifts into overt psychological assets

in the form of demonstrable managerial competencies, which can enhance their performance on the job, and also enable them to be pro-social among colleagues in the work settings.

Conclusion

This study concludes that there is a positive relationship between OS and organisational citizenship behaviour. It also concludes that PsyCap is a significant moderator of the relationship between OS and organisational citizenship behaviour. The researchers therefore finally state that the study findings contribute specifically to the existing literature on occupational stress, organisational citizenship behaviour and also to the literature on employee performance management.

Acknowledgements

Competing interests

Authors' contributions

J.K.A. is the PhD researcher who designed, developed and implemented the research blueprint under the supervision of T.Q.M.

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The impact of social media on recruitment: Are you LinkedIn?

Authors:
Tanja Koch[1] ⓘ
Charlene Gerber[1]
Jeremias J. de Klerk[1] ⓘ

Affiliations:
[1]Department of Business Management, University of Stellenbosch Business School, South Africa

Corresponding author:
Jeremias de Klerk,
mias.deklerk@usb.ac.za

Orientation: With many organisations vying for the same talent, it is important to ensure that the correct methods are utilised in identifying and attracting the best talent to an organisation.

Research purpose: This research investigates the impact of social media on the recruitment process in South Africa.

Motivation for the study: As the competition for qualified talent increases, organisations need to understand where to focus their resources to attract the best talent possible. The use of social media is growing daily and its use in the recruitment process seems to have grown exponentially.

Research design, approach and method: The sample comprised 12 recruiters, spanning a wide range of industries in South Africa. Semi-structured interviews were conducted and a thematic analysis was utilised to identify themes and subthemes.

Main findings: Despite still utilising some traditional methods of recruiting, South African recruiters follow their international counterparts, with LinkedIn being central to their respective recruitment processes. The use of Twitter and Facebook for recruitment was found to be substantially lower in South Africa than elsewhere. Without following a focused approach, the volume of work that emanates from using social media may overwhelm a recruiter.

Practical and managerial implications: Recruiters cannot execute effective recruitment without applying social media tools such as LinkedIn. However, training in the optimal use of social media is essential.

Contribution: This study indicates that LinkedIn has a major impact on recruitment in South Africa, but that social media is not a panacea for recruitment issues.

Introduction

Attracting and retaining talent has become one of the key strategic issues in the talent management of many organisations (Schlechter, Hung & Bussin, 2014; Singh & Finn, 2003). Research furthermore shows that traditional, so-called 'spray and pray' recruitment methods are no longer sufficient in attracting talented employees to an organisation (Joos, 2008). The main reasons are that these methods only focus on the small and limited active pool of potential candidates, but do not give organisations access to the highly sought-after talent that may be present in the semi-passive and passive candidate pools (Dutta, 2014; Khullar, Pandey & Read, 2017; Singh & Sharma, 2017). In the quest to find these candidates faster and cheaper, new sourcing tools have been created through electronic and social media (Hunt, 2014; Phillips & Gully, 2012; Tyagi, 2012). With the exponential growth in social media users, specifically the social networking sites LinkedIn and Facebook and the microblogging site Twitter, strategic tools were developed which can be leveraged to identify, attract and recruit both active and passive potential candidates (Caers & Castelyns, 2011; Doherty, 2010; Hunt, 2010; Nikolaou, 2014; Zide, Elman & Shahani-Dennig, 2014). The objective of this article is to explore how social media impacts recruitment in South Africa.

Research purpose

The use of external recruiters as consultants is a common approach that many organisations apply to identify and source potential external candidates on behalf of their organisation (Armstrong, 2006). It is here that the specialised use of appropriate processes and technologies becomes an important aspect of the recruitment plan and strategies of various recruitment consultants. For this reason, it is important to research how recruiters use emerging technologies like social media in order to gain a better understanding of its use and value. The very nature of social media

enables recruiters to specifically identify and target talented but passive or semi-passive job candidates and to lure them to potentially attractive employment positions.

It appears that South African researchers have given little or no attention to how social media has changed the recruitment processes employed by recruiters, and the ability of social media to attract talent. The question thus remains whether the use of social media in South Africa is a significant development to take note of or if it is just a hype without much practical value. The objective of the research discussed in this article is to explore the possible impact of social media on recruitment in South Africa.

Literature review
Recruitment

Recruitment is an essential part of talent management and can be defined as 'the process of searching the right talent and stimulating them to apply for jobs in the organization' (Sinha & Thaly, 2013, p. 142). Recruiting the wrong individual is costly. Even for low-level positions, a failed hire may cost a company double the person's annual salary, rising to around six times the annual salary at higher levels (Armstrong, 2006; Houran, 2017). Employers are thus making an effort to address issues related to the attraction, recruitment and selection of talent (Holland, Sheehan & Pyman, 2007). Recruitment is not an isolated organisational function. Rather, identifying, attracting and recruiting the right talent is a key success factor of any talent management strategy (Gallardo-Gallardo & Thunnissen, 2016; Tyagi, 2012). Talent can be defined as the entirety of an employee's ability, including attributes such as skills, knowledge, experience, intelligence and character (Armstrong, 2006; Stahl et al., 2012).

Having the right employees and talent is arguably the most important asset of any organisation (Sinha & Thaly, 2013). Several studies have shown that organisations with better talent consistently show better performance (Armstrong, 2006; Kehinde, 2012; Michaels, Hanfield-Jones & Axelrod, 2001; Nagpal, 2013). An organisation's ability to attract and retain the best talent is therefore one of the most important determinants of organisational effectiveness (Armstrong, 2006; Kehinde, 2012; Singh & Finn, 2003). Those organisations that differentiate themselves in their attraction, development and retention strategies are the ones that ultimately succeed (Al Ariss, Cascio & Paauwe, 2014; Schlechter et al., 2014; Tarique & Schuler, 2010).

The concept of a 'war for talent' is not new, and was already noted in 1998 (Chambers, Foulon, Handfield-Jones, Hanking & Michaels, 1998). In the current business environment, organisations are facing significant challenges in finding the correct employees (Schlechter et al., 2014). The term 'competency deficit' is used to describe what can be seen as one of the reasons why organisations are facing these challenges in the attraction of talented employees (Herman, Olivio & Gioia, 2003). A competency deficit refers to a situation where insufficient employees have the skills needed for performing a required task, mainly because of inadequate education and training. Michaels et al. (2001) reason that the factors driving the increased competition for talent include the move from the industrial age to the information age. This has resulted in the need for an entirely different skill set and an ever-increasing demand for high-level managerial talent, as well as a growing tendency among employees to change jobs more frequently than was the case in the past. Jobs (2003) argues that there is a distinct change in employees' attitudes towards work, with a significant increase in the number of employees willing to change jobs more regularly now than in the past. It can be further argued that, while jobs and the organisational environment become more complex, birth rates are declining in some developed countries and the competition for talent is increasing globally, resulting in a chasm between skilled jobs and qualified high performers that is growing constantly (Hunt, 2014). The bottom line is that there are a number of causes contributing to the difficulties that organisations have in attracting and retaining talented employees. In combination, these causes are creating a fierce competition for talent among organisations. The exponential growth of the need for scarce skills and the resulting fierce competition to attract the best and most competent people has led to the notion of the 'war for talent' (Chambers et al., 1998), which has been the subject of much research and practical scrutiny since then (Gallardo-Gallardo & Thunnissen, 2016; Thunnissen, 2016). Organisations that want to win the war for talent need to elevate talent management to a corporate priority, including the attraction and retention of smart, energetic and ambitious individuals (Chambers et al., 1998).

As managers are increasingly realising that running a successful organisation depends on having the right employees in the right positions to successfully execute their strategy (Stahl et al., 2012), a shift is therefore taking place regarding the view of the role and importance of recruitment. It is shifting from viewing recruitment as an often-outsourced back-office function to a key differentiator in the competition for talent (Hunt, 2014). It becomes apparent that the recruitment of talent is increasingly being regarded as more of a strategic function than what was once the case (Phillips & Gully, 2012; Ready, Hill & Conger, 2008). What was previously regarded as an administrative task has now become a key strategic function that supports an organisation's strategy and enhances its effectiveness. Companies are thus increasingly realising the strategic importance of the identification, attraction and recruitment of talented employees into their organisations (Houran, 2017).

The aim of recruitment is to draw important resources into an organisation – namely, human capital (Ready et al., 2008; Thunnissen, 2016). Thus, its purpose is to identify, attract and secure the most qualified and competent employees for an organisation's current and future talent needs (Armstrong, 2006; Thunnissen, 2016). Recruitment is the process of finding the right person who is interested in working for an organisation, influencing these particular individuals to

apply for the job and convincing them to accept the position (Phillips & Gully, 2012). This can be divided into internal and external recruitment. Internal recruitment refers to the recruitment of employees who are currently employed in different positions within an organisation, whereas external recruitment refers to targeting employees currently outside an organisation (Breaugh, 2008; Hughes & Rog, 2008; Stahl et al., 2010). One could assume that internal recruitment is one of the best ways to fill vacancies as employees are already immersed in the company culture, and management knows how a certain employee performs. However, this is not always possible or desirable and there are several reasons for organisations to find talented employees outside of the organisation, in order to fulfil its present and future talent needs (Armstrong, 2006). For example, organisations might recruit from outside when specialised skills are not available within the organisation and/or there is a need for an increase in the diversity of the workforce (Pynes, 2013).

Different types of candidates are motivated by different factors in making a potential career move to a new organisation. Potential candidates can be classified into different categories, namely, active, semi-passive and passive candidates (Joos, 2008; Phillips & Gully, 2012). *Active candidates* are those candidates who are active in the process of seeking employment. This group typically 'represents 10% or less of the total workforce at any given time' (Joos, 2008, p. 52). *Semi-passive candidates* are those who are interested in a new position but are not actively engaged in the process of seeking new employment. *Passive candidates* refer to those candidates who are currently employed and are not seeking a different position. At all times, but probably even more so in periods of low economic growth, organisations should endeavour to attract and entice the best talent to join, rather than only being interested in those actively looking for new employment opportunities (Phillips & Gully, 2012). In the battle for talent, one sometimes has to be proactive in order to be successful (Thunnissen, 2016). Both passive and semi-passive candidates would potentially consider making a job change if they are lured with attractive opportunities and enticing conditions (Joos, 2008).

To attract candidates into an organisation (especially semi-active and passive candidates), the potential candidate must firstly be identified so that the job can be brought to their attention (Armstrong, 2006). Of course, this requires a specific capability in identifying potentially suitable and adequately qualified candidates and then doing the selection of the most suitable potential candidates (Pynes, 2013). It is only after these steps that the position and conditions must be attractive enough to persuade the potential candidate to apply for the position and to maintain their interest in the position until such a time that an acceptable offer is extended and accepted (Barker, Barker, Bornmann & Neher, 2009; Breaugh, 2008).

Plans for identifying and attracting good candidates for which the recruiting organisation will become an 'employer of choice' are typically made in an organisation's recruitment plan (Armstrong, 2006). Sourcing is a key initial step of the recruitment process in executing a recruitment plan. The sourcing component focuses on the actual identification of qualified candidates and the way to reach them (Phillips & Gully, 2012). The act of sourcing candidates is generally performed by a recruiter, who can be either an internal or a dedicated (external) recruiter (Sinha & Thaly, 2013). Hunt (2014) argues that organisations that excel at the sourcing stage in the recruitment process show better recruitment results and, therefore, also show better financial performance than their competitors.

With an appreciation of the importance of recruitment especially the importance of sourcing, the best method for recruitment remains debatable (Houran, 2017). Depending on what type of candidates need to be identified and attracted, there are a number of ways to source candidates, each with its own strengths and weaknesses (Hunt, 2014). However, identifying and attracting the right candidates is very difficult and can become a logistical nightmare (Sinha & Thaly, 2013). Less than a decade ago, candidate sourcing was still focused predominantly on more formal research practices, such as job advertisements, employers' websites and job boards, with little or no focus on social media (Breaugh, 2008). Until recently, recruitment advertising in national and local newspapers, in trade journals and on organisations' own career sites on corporate websites were seen as the main tools used to attract candidates. In addition, traditional sourcing activities such as asking candidates for referrals, visiting job and trade fairs and using organisations' own candidate databases were popular (Phillips & Gully, 2012). However, research has shown that placing an advertisement in popular media or on an organisation's website has a limited chance of attracting the right candidates (Nikolaou, 2014). Placing advertisements in popular media is not ideal for recruitment, as usually only active candidates tend to apply for the jobs in these advertisements, resulting in a small and limited candidate pool (Phillips & Gully, 2012). The former recruitment method, which was aimed primarily at active candidates, was predominantly the method that could be termed as the 'spray and pray' method. This means that recruiters 'sprayed' job advertisements across pages of print media and on websites, and job seekers in turn 'sprayed' their CV in the direction of recruiters, with both parties 'praying' for a positive outcome (Joos, 2008). As the competition for talented employees grows, organisations are coming to the realisation that they only access a small and limited active candidate pool through traditional recruitment practices.

The way organisations source candidates is changing rapidly and new sourcing tools are continuously being developed. Indeed, there is a clear shift towards modern and innovative sourcing channels for various factors such as quality, cost, availability and time (Sinha & Thaly, 2013). The advent of the Internet and social media have been key drivers in the development of new sourcing tools and the effective use of

appropriate technology is becoming the dominant driver for sourcing candidates (Dutta, 2014; Hunt, 2014).

Internet, social media and recruitment

In recent times, the massive growth of social media and Internet capacities and capabilities has added numerous other sourcing possibilities and activities. Some of these include Internet job boards (Internet sites that allow organisations to upload their vacancies and candidates to upload their CVs), Internet data mining (the process of using Boolean Searches) and web crawlers (programmes that continually search the web for information about employees) (Nikolaou, 2014; Parez, Silva, Harvey & Bosco, 2013; Sinha & Thaly, 2013). Other capacities and capabilities include flip searching (a process which identifies employees that link to specific Internet sites to search for passive and semi-passive candidates) and social networking (leveraging connections on social media) such as LinkedIn, Facebook and Twitter.

In this world of abundant Internet and social media, with so many options available, choosing which sourcing tool to use becomes a fundamental decision in the recruitment process for any organisation or recruiter (Galanaki, 2002; Sinha & Thaly, 2013). In order to attract high-calibre passive and semi-passive potential candidates, it becomes increasingly possible and necessary to move away from the traditional 'spray and pray' approach and to embrace the new sourcing tools offered by the Internet and social media (Dutta, 2014). In the process, it is important to take cognisance of differences in the approach and philosophy between conventional and various social media recruitment tools (Dutta, 2014).

Social media

Social media can be defined as the use of web-based conversational media (applications that make possible the creation and transmission of content in the format of words, pictures, videos and audios) among communities of people who meet online to share information, knowledge and opinions (Safko & Brake, 2009). Four key motivations drive the use of social media: connect, create, consume and control (Hoffman & Fodor, 2010). A wide variety of social media platforms are available and well established, for example, Facebook, LinkedIn, Instagram, Twitter, et cetera. However, a large body of previous research indicates that among the various social media platforms, Facebook, LinkedIn and Twitter are mainly used in the sourcing process (Caers & Castelyns, 2011; Doherty, 2010; Dutta, 2014; Singh & Sharma, 2014). LinkedIn and Facebook could be classified as social networking tools, in other words, tools that allow users to share information about themselves, often through an online profile that they have created themselves (Safko & Brake, 2009). Twitter falls under the subcategory of microblogging tools, which allow users to communicate a message in less than 140 characters.

Social networking and microblogging sites have shown tremendous growth over the past few years, with Facebook witnessing an average of 1.32 billion daily active users in June 2017 (Facebook, 2017), an increase of 23% from the figure in 2016 (Zephoria, 2017), of which more than 14 million users were from South Africa (2OceansVibe, 2016; Business Tech, 2016). LinkedIn had 467 million members in 2017 (Chaudhary, 2017), of which 5.5 million users were from South Africa (2OceansVibe, 2016). More than 1 million professionals have published a post on LinkedIn and the average user spends 17 min monthly on LinkedIn (Chaudhary, 2017). Twitter had 317 million users in 2017, of which more than 7.7 million users were from South Africa (2OceansVibe, 2016).

Social media and recruitment

Research has indicated that placing an advertisement in popular media or on an organisation's website has a limited chance of attracting the right candidates (Phillips & Gully, 2012). This is because mainly active candidates seem to apply to these advertisements, resulting in a small and limited candidate pool. As the number of users on social media increases, the use of social media channels in recruiting is gaining momentum (Dutta, 2014; Singh & Sharma, 2014). This trend results from organisations' ability of recognising the potential of these channels to attract not only active prospective job candidates but also passive and semi-passive candidates. Social networking sites such as LinkedIn, Facebook and Twitter allow recruiters to post job advertisements to lure a wide spectrum of potential candidates to easily access and apply for such potential positions, thereby enabling recruiters to search for and screen potential job applicants – even those who do not necessarily apply (Sinha & Thaly, 2013). There is evidence that recruiters and organisations are realising that more and better candidates can be discovered and approached quicker and at a lower cost by utilising social networks, compared to traditional recruitment methods (Armstrong, 2006; Singh & Sharma, 2014). Specifically, a strong association has been found between the use of LinkedIn and the ability of identifying and attracting passive candidates (Nikolaou, 2014).

By using social networks for recruiting, access is enabled to a wide range of candidates who are easily accessible at any given time. For example, LinkedIn now has 3 million active job listings (Chaudhary, 2017). Moreover, utilising social networks makes this access possible at an increasingly lower cost (Broughton, Foley, Ledermaier & Cox, 2013; Brown & Vaughn, 2011; Khullar et al., 2017). It is especially the widely sought-after pool of very competent but passive candidates that social networks give recruiters access to (Doherty, 2010; Joos, 2008). It is thus not surprising that recruiters and organisations regard social media and networks as attractive recruitment tools, which give recruiters a competitive edge in reaching their recruitment objectives when it is done effectively (Singh & Sharma, 2014).

It is clear that the use of social media platforms has become the norm for sourcing in recruitment and recruiters believe that social media enables them to find better quality candidates. Indeed, 93% of recruiters use social media to

support their recruiting efforts (Jobvite, 2014). Social media is used in recruitment for a number of reasons. When inquiring into how recruiters use social media for advertising, Jindal and Shaikh (2014) found that 50% use social media in paid-for job advertising via social media platforms and 37% advertise vacancies via tweets or alerts, or make use of free job advertising via targeted social media platforms (e.g. Facebook). Furthermore, 30% of recruiters develop a database of followers and/or supporters by posting regular updates, and 18% use the social media platform's job search engines to advertise vacancies or to accept CVs and application forms on an organisation's behalf. Surprisingly, only 7% of recruiters use it to screen the suitability of potential recruits on their social networking pages.

This leads to the following question: Which of the social media platforms are the most effective to use? Although Facebook is globally the largest social media platform, it is not the most popular or effective platform for recruitment (Bullhorn, 2014). Jobs posted on LinkedIn receive more views from potential candidates than those on Facebook and Twitter combined, and these posted jobs garner twice as many applications per job advertisement in general. LinkedIn is by far the most preferred social network when it comes to recruitment (Jobvite, 2014). Over 95% of recruiters who use social media in their recruitment process indicated that they use LinkedIn (Bullhorn, 2014), compared to 66% utilising Facebook and 52% engaging with candidates on Twitter (Jobvite, 2014). This trend is confirmed by Zide et al. (2014), who found that all the respondents in their research utilise LinkedIn in their recruitment process. Furthermore, recruiters who use LinkedIn more frequently in their sourcing have seen more success in the use of LinkedIn and therefore use it more often (Caers & Castelyns, 2011; Ollington, Gibb, Harcourt & Doherty, 2013). Indeed, the staffing and recruitment industry is the one that is connected most on LinkedIn (Darrow, 2017). Houran (2017) found that LinkedIn is overwhelmingly used in the recruitment of candidates for key management positions at senior (87%) and middle management levels (80%), whereas it is very rarely used for entry positions (8%). These studies confirm the importance of LinkedIn in the recruitment process.

It appears that one of the main reasons for the higher level of use of LinkedIn among the social networking sites relates to its being seen by the public as almost exclusively for building professional relationships, which is not the case with Facebook and Twitter, which are more general social media (Zide et al., 2014). Although all three of these social media platforms are being used in the sourcing process, they tend to be used differently. LinkedIn is generally used for posting advertisements, searching for candidates, and contacting and vetting candidates (Jobvite, 2014). On the other hand, Facebook and Twitter are used more to showcase the employer brand and to generate referrals as well as to post advertisements (Jobvite, 2014).

There is a marked preference among recruiters and human resource professionals for LinkedIn rather than Facebook

for recruitment as they consider the former to be more effective than the latter (Nikolaou, 2014). Recruiters are of the opinion that LinkedIn gives the most insight into candidates' employment history, education, years of experience as well as how they present themselves (Zide et al., 2014). The Jobvite annual Social Recruiting Survey is arguably one of the most comprehensive surveys of its kind. This (2014) survey was conducted online and was completed by 1855 recruiting and human resources professionals, spanning across several industries. The difference in the application of the social media platforms also yielded different results for recruiters. Overall, 79% of recruiters indicated that they placed a candidate through LinkedIn, 26% indicated that they did this through Facebook and only 14% indicated that they placed a candidate through Twitter (Jobvite, 2014). Although LinkedIn has one of the highest success rates of any website, it seems that it is still used less than more conventional recruitment platforms like job boards, career portals and corporate websites, or at least in combination with it (Allden & Harris, 2013; Tyagi, 2012). One of the reasons why many recruiters still prefer the more conventional sourcing tools could possibly be ascribed to recruiters' limited knowledge of how to recruit effectively on social networking sites (Allden & Harris, 2013). However, although web-based job portals generate many applications, they still do not necessarily reach all the candidates, especially passive or semi-passive candidates (Sinha & Thaly, 2013).

Notwithstanding the substantial increase in the use of social media for recruitment, one should be careful to think that it is the panacea that resolves all recruitment problems; it also has pitfalls (Doherty, 2010). For example, with candidates uploading their own profiles it is likely to lead to profile inflation – which can be described as attempts to artificially enhance one's profile through little white lies or using deceptively positive terms to describe oneself, past accomplishments or current status (Houran, 2017). With the practice of candidate identification and screening through social media, legal implications are likely to arise due to the wrong use of information (Melanthiou, Pavlou & Constantinou, 2015). Also, although social media is extensively used for screening candidates, it is still unclear whether this screening influences a recruiter's decision to such an extent that they would reject an applicant (Melanthiou et al., 2015). Dutta (2014) argues that while social media can offer various sourcing opportunities to recruiters, resulting in a profound impact on the way that recruitment functions within organisations, it should not be mistaken for a full recruitment strategy. Rather, it forms merely a part of an organisation's recruitment strategy. It could be argued that the recruitment process has been transformed from a mainly sequential process to a parallel process. In the latter process, social media tools are not used to directly replace traditional sourcing tools, but rather to supplement them to give recruiters access to the highly sought-after passive candidate pool (Joos, 2008) in order to turn them into active candidates (Doherty, 2010).

Social media and recruitment in South Africa

Although the use of social media for recruitment has been researched extensively internationally, no studies have explored the use of social media as recruitment tools in South Africa as far as this could be established. An extensive literature search, focusing on the use of social media in general and the use of Facebook, LinkedIn and Twitter in particular for recruitment or employment purposes in South Africa rendered no results. Not even exploratory studies could be found on how social media is used in the field of recruitment. Although there are South African studies that investigated the use of social media by organisations (Cilliers, Chinyamurindi & Viljoen, 2017), no evidence could be found that focused on how it is specifically used in recruitment. Studies on the use of social media tend to focus on its informal use for personal networking, social and political commentary, et cetera. The few available studies on the use of social media in the world of business mostly focus on how it is used or could be used for aspects such as marketing, image building and teaching and training (Bolton et al., 2013). This observation provides confirmation to the suggestion from Roth, Bobko, Van Iddekinge and Thatcher (2016) that organisational practice has outpaced the scientific study of social media in the field of work.

Research methodology

Research approach

Based on the paucity of research in the field of recruitment in South Africa, an exploratory research was conducted for the purposes of gaining insights into the possible impact of social media on recruitment in South Africa. Data on the use of social media for recruitment were gathered through semi-structured interviews with recruiters. The aim of the interviews was to explore recruiters' sourcing techniques and obtain insights into their sourcing techniques and processes, especially relating to the use of social media. Semi-structured interviews were selected as the method of data collection because of their potential to elicit rich descriptions on the subject (Bloomberg & Volpe, 2012). They offer the interviewer the opportunity of gathering in-depth information as they provide a situated activity that locates the observer in the world of the participant, involving an interpretive approach (Denzin & Lincoln, 2011). In this situation, in-depth information can be classified as understandings that are held by real-life members in some activity or event. Semi-structured interviews allow the interviewer to gain in-depth information by allowing probing and follow-up questions to mine for underlying aspects to specific answers, ask more questions and observe participants (Wegner, 2014).

Sample

Semi-structured interviews were conducted with 12 recruiters from four different recruitment agencies. The four agencies were purposefully selected to represent a range of industries and focus areas. The participants were selected by means of judgement sampling. In this case, two groups of recruiters were identified.

The first group consisted of six recruiters with more than 8 years of recruiting experience. This was done to include recruiters with substantial recruitment experience and who became involved in recruiting at a time before social media was used. The second group of six recruiters was selected to have less than four years of recruiting experience. In other words, these recruiters have only been recruiting in an age where social media was already commonly available and in use. The age of the participants ranged from 25 to 38 years. Participants represented recruiters from different geographical locations, from three recruitment agencies. Four of these agencies are based in Gauteng and one recruitment agency is based in the Western Cape. The participants were also selected to represent different recruitment focus areas and industries to allow for some variation in the sample (i.e. information technology, engineering, financial services, executive and senior management, human resources, management consulting and finance).

Participants were contacted and invited telephonically to participate in the research, and to set up an interview date, time and location at their convenience. The interviews were personally conducted by the main researcher in face-to-face settings, and recorded and transcribed verbatim for thematic analysis. Among other benefits, face-to-face interviews allowed the interviewer to establish a better rapport with interviewees and to note non-verbal responses such as body language and facial expressions when conducting the interviews (Wegner, 2014).

Measuring instrument

An interview schedule was used, with 13 specified interview questions pertaining to (1) the method of recruitment, (2) the procedure of recruitment and (3) the use of social media in recruitment. The 13 mandatory questions were developed by abstracting aspects of importance to the research purpose and trends relating to recruitment practices with social media elsewhere in the world, as identified through the literature study. The questionnaire included questions on both the traditional and present use of recruitment tools and their effectiveness. Specific questions and follow-up questions pertaining to the use of social media in recruitment referred only to LinkedIn, Facebook and Twitter. This was done because previous research indicated these as the most important social media sources in recruitment (Bullhorn, 2014; Caers & Castelyns, 2011: p. 442; Ollington et al., 2013; Zide et al., 2014). Questions were formulated according to the language and jargon commonly used by recruiters. Examples of interview questions include:

- Can you think back – before the advent of social media – and can you tell me when you got a new job to work, what were the sourcing tools you used to find candidates?
- Could you draw a diagram in terms of how you used to source your candidates, showing the weighting of each tool?
- When you get a new job to work, what are the sourcing tools you use to find candidates?
- Which of the social media platforms do you use most frequently? Please elaborate – out of 10 jobs you would on average use x% of time, y% of time, et cetera.

- Which of the social media platforms do you use and why do you use them?
- How successful are you when you use social media as a sourcing tool and why do you say this?

Some of the questions were repeated during the interview so as to explore both the traditional and present use of social media in recruitment.

Strategies to ensure data integrity

Qualitative data analysis is a continuous process that commences while the data are being collected (Marshall & Rossman, 2006). The challenge for the researcher is to enter the social world of the research participants and to try and understand the world from their points of view as objectively as possible (Saunders, Lewis & Thornhill, 2011). Care was taken not to form conclusions and themes in the mind while doing the interviews, but to ground the findings of the interview data through a structured process of thematic analysis in order to ensure its trustworthiness. The process of data analysis began with the transcription of the interviews by the researcher, which allowed for building familiarity with the data (Saunders, Lewis & Thornhill, 2011). Subsequently, a structured process of thematic analysis (Braun & Clarke, 2006) was manually conducted by coding and categorising data, from which the key subthemes and themes emerged. Creswell's (2007) and Leedy and Omrod's (2010) research suggested steps for analysing qualitative data, which were applied to analyse the transcriptions through a structured approach to ensure the trustworthiness of the findings. These steps are to (1) sift through the relevant information to identify statements that relate to the topic (open coding), (2) to group statements into 'meaning' categories that reflect coherent dimensions (axial coding), (3) to seek divergent perspectives and ways in which different participants experience the recruitment differently and (4) to construct key themes (code families).

The interviews did not explore the use of social media by agencies but rather its use by actual recruiters. Although the participants are employed by different agencies, they participated in their personal capacity rather than as a representative of the agency. The reason for this approach was that even though an agency may claim to use social media in its recruitment endeavours, and probably have a Twitter and Facebook account or page, active recruitment through social media does not happen practically unless the individual recruiters actually use such social media practices. This approach was deemed to provide more trustworthy findings for the objectives of this study than focusing on the official practices of an agency.

Findings

With regard to the use of social media in recruitment processes, it was found to be high among participants overall. Similar to research conducted outside of South Africa (Zide et al., 2014), this research found that the use of LinkedIn is much higher among the participants than the use of either Twitter or Facebook (see Figure 1).
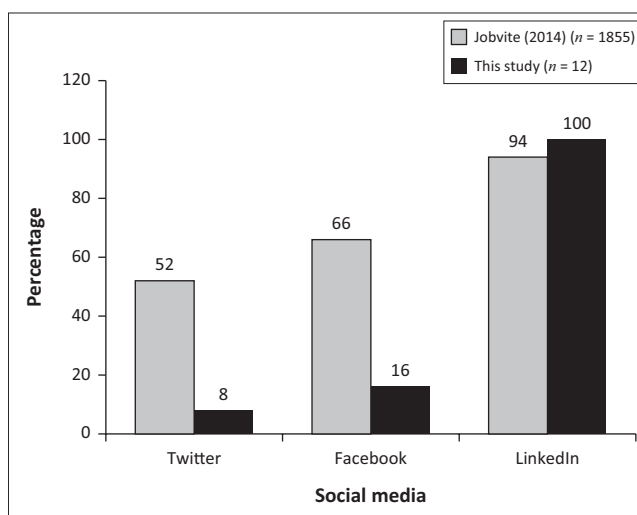
Source: Jobvite. (2014). Social recruiting survey results. *Jobvite*, 1–17. Retrieved April 20, 2017, from https://www.jobvite.com/wp-content/uploads/2014/10/Jobvite_SocialRecruiting_Survey 2014.pdf and authors' own work

FIGURE 1: Percentage of recruiters using social media in their sourcing process.

TABLE 1: Themes and subthemes identified from the interviews.

Theme	Description	Subtheme description
Theme 1	Twitter has little impact on recruitment	• The general small size of recruiters' Twitter network restricts its use • Limited knowledge of Twitter restricts its use • Recruiters have limited time to use Twitter extensively
Theme 2	Facebook has little impact on recruitment	• Facebook is not actively used for recruitment • Facebook is seen as a platform that is not to be 'used for work'
Theme 3	LinkedIn has an important impact on recruitment	• LinkedIn is primarily used for candidate search • LinkedIn is widely used for advertising • LinkedIn is used by all recruiters (in this study)
Theme 4	Social media is an important part of recruitment	• Traditional job advertising is moving to electronic advertising • Competition for candidates remains with the use of social media • Social media tends to create a high volume of work • Seniority of a position makes a difference in how social media is used in recruitment

Only one of the 12 participants (8%) in the sample indicated that they us Twitter for recruitment, which is much lower than the 52% recorded by Jobvite (2014). Furthermore, the use of Facebook by the respondents was also shown to be much lower, with only 16% (2 of 12) mentioning the use of Facebook in comparison to the 66% found in the Jobvite study. Participants, however, follow the international trend of using LinkedIn, with all of them mentioning the use of LinkedIn in the process in comparison to the 94% found by Jobvite. Although the differences can be ascribed to the comparatively small sample size of this study, they arguably still provide important and noteworthy information regarding the difference in using social media in South Africa, in relation to elsewhere.

Thematic analysis of the interview data rendered key themes on the impact of each of the main social media sites utilised in the sourcing process (Twitter, Facebook and LinkedIn). There is also a key theme on the overall changes in the sourcing process since the advent of social media. Table 1 presents the main themes and subthemes identified from the interviews.

The four themes are described in more detail in the sections that follow. Some verbatim comments from participants are included in the discussion to demonstrate the trustworthiness of the themes and subthemes derived from the analyses. Participants are identified as follows: participant number (e.g. P1), age, years of recruitment experience, location, industry specialisation for recruitment, for example, information technology (IT).

Theme 1: Twitter has little impact on recruitment

Although Twitter is not the most popular social media platform in recruitment worldwide, a large body of research has shown that Twitter is used extensively internationally by recruiters in the sourcing process (Caers & Castelyns, 2011; Dutta, 2014; Singh & Sharma, 2014). However, participants in this study indicated that, of the three social media tools, they used Twitter least. Only one of the respondents mentioned the use of Twitter in their recruitment practice. One of the main reasons mentioned by the participants for not using Twitter in sourcing is that they feel they do not have sufficient knowledge of Twitter or an understanding of how to use it effectively in recruitment. Of the participants, 58% (7 of 12) mentioned the lack of knowledge of the use of Twitter as their reason for not using it. As participants noted about Twitter:

> 'Twitter? I don't even know how to work it.' (P1, 33, 9 years' experience, Johannesburg, Engineering)

> 'Twitter – never ever. I'm so old school. I tried to use Twitter just for news and then I got over it.' (P6, 29, 7 years' experience, Cape Town, Financial Markets)

This finding is in agreement with the findings of Allden and Harris (2013). The lack of knowledge of Twitter possibly hints towards suggesting that recruiters should be trained on how to effectively use Twitter in the sourcing process. This could increase the use of Twitter by recruiters. However, even those participants who have the knowledge and have been trained to use Twitter in the sourcing process still do not use it in their recruitment process:

> 'I have learnt how to use Twitter but I have never done it. I haven't had the time to try something new so I'm sticking with what I know works.' (P2, 43, 14 years' experience, Johannesburg, Engineering and IT)

Participants commented that they work under significant time constraints and that a lack of available time prohibits them from adding Twitter as a tool in their sourcing process:

> 'We're so busy that there's really no time to try something new [Twitter] – so it's a bit of a catch 22.' (P4, 35, 11 years' experience, Johannesburg, IT)

The reason why Twitter is perceived to be overly time-consuming was not clear. One possible reason could be that it takes much time to actively manage a large Twitter account, or being flooded by too many incoming tweets. One could also speculate that if time constraint is an issue

for recruiters, it may apply similarly to job candidates. This is a new and unique finding that has not been reported elsewhere as far as we know. Although the time constraint issue regarding the use of Twitter for sourcing does not appear in international research, it is mentioned that it is important to ensure that recruiters do not merely tweet about jobs, but that the tweets reach the target job-seeking audience (Jindal & Shaikh, 2014).

Another reason for the low use of Twitter relates to recruiters' general and regular activity on Twitter, which consequently impacts the size of their Twitter network and number of followers:

> 'I don't do anything on Twitter – I browse but I don't have a big network there.' (P5, 28, 5 years' experience, Cape Town, Financial Markets)

Participants indicated that the size of their Twitter network negatively impacts their use of Twitter in their sourcing approaches. A small following on Twitter gives them the feeling that they will not achieve the results they are looking for. Three of the participants indicated that they feel their Twitter network is not large enough to justify its use for recruitment. They also feel that they personally do not have sufficient followers and therefore do not have enough reach to warrant the use of Twitter to attract potentially relevant candidates:

> 'I'm not connected enough on Twitter, not enough people follow me. I don't focus enough attention on what my brand is on Twitter.' (P8, 43, 15 years' experience, Cape Town, Financial Services)

This observation is related to the view that recruiters using Twitter in recruitment must actively tweet to earn traction, because occasional random tweets do not have an impact (Hunt, 2010). Although this finding may appear to be somewhat obvious, this aspect apparently does not attract much attention in research, apart from Silliker's (2011) observation that organisations with high numbers of followers receive a large number of applications. Not using Twitter actively in recruitment arguably makes recruiters focus their attention on those sourcing tools that they believe will give them a larger reach and a greater result.

Based on the findings of this research, the reasons noted for recruiters not using Twitter more for sourcing are varied, ranging from the feeling of a too small a network with not enough reach and limited training to a lack of knowledge for using it effectively and the time it would take to learn how to use it. It would be fair to surmise that, to all intents and appearances, Twitter is not regarded or used as a popular recruiting tool by recruitment agents in South Africa.

Theme 2: Facebook has little impact on recruitment

Similar to the use of Twitter, research by Jobvite (2014) indicates that Facebook is globally used to showcase the employer's

brand and generate referrals as well as to post advertisements. However, in this study, only 2 of the 12 respondents (17%) mentioned that they utilise Facebook as a tool for sourcing candidates. When asked why they do not use Facebook more actively, one of the participants noted:

> 'For me there's a big difference between work and private life. Facebook represent[s] the personal side of my life. I don't like mixing the two, I don't want candidates in my personal life if I'm posting pictures of me and my son or whatever.' (P9, 42, 15 years' experience, Cape Town, Oil and Gas/Commercial)

Evidently, Facebook is seen as a representation of the participant's private life and there is essentially a separation between who they are or what they do at work and who they are or what they do at home:

> 'Facebook? I don't use it. My perception is that Facebook is social and I don't want to be advertising or talking about work on Facebook. My Facebook is my personal brand.' (P8, 43, 15 years' experience, Cape Town, Financial Services)

It would seem that participants make a clear distinction between the use of Facebook for their private lives, and LinkedIn for the professional side of their lives, not wanting these two areas to overlap:

> 'I don't see Facebook as a business tool, I always see it as more social.' (P1, 33, 9 years' experience, Johannesburg, Engineering).

> 'Facebook? I don't use it because it's my private entity.' (P3, 40, 20 years' experience, Johannesburg, Commercial/Financial)

As most of the participants do not utilise Facebook for sourcing job candidates, it cannot be seen as an effective recruiting tool for individual recruiters in South Africa. This is an important new finding, as this private and/or work life distinction has not attracted the attention of international research as far as could be established and does not appear to be an issue elsewhere. Rather, this finding appears to be unique to South Africa and relates to other research which found that it is quite common that employees and organisations do not consider Facebook to be a legitimate work tool (Cilliers et al., 2017).

Theme 3: LinkedIn has an important impact on recruitment

All of the study participants indicated that they always, or often, make use of LinkedIn for recruitment purposes, confirming the preference for LinkedIn as a sourcing tool over and above other social media platforms in South Africa:

> 'LinkedIn Search – 100% of the time.' (P6, 29, 7 years' experience, Cape Town, Financial Markets)

> 'LinkedIn? 80% of the time.' (P11, 45, 20 years' experience, Johannesburg, Management Consultants)

> 'LinkedIn Recruiter is the best tool that I ever come across.' (P5, 28, 5 years' experience, Cape Town, Financial Markets)

This finding is in line with international research, which has shown LinkedIn to be the most preferred social network in recruitment (Houran, 2017; Nikolaou, 2014; Zide et al., 2014).

However, the preference for LinkedIn is (marginally) even stronger for this sample than what has been reported elsewhere.

Similar to trends reported in international research (Houran, 2017), participants in this study used LinkedIn for different sourcing activities. Of the participants, 67% (8 of 12) mentioned that they do not place advertisements on LinkedIn, but rather use it to search for potential candidates to approach for positions. Searching LinkedIn for potential candidates is preferred over placing advertisements on LinkedIn:

> 'I don't put ads on LinkedIn. I only use it to find candidates.' (P1, 33, 9 years' experience, Johannesburg, Engineering)

> '100% of the time I will go on to LinkedIn to search for candidates.' (P4, 35, 11 years' experience, Johannesburg, IT)

This finding is in line with international trends that recruiters prefer LinkedIn over Facebook, Twitter or other social media to find or identify suitable potential candidates (Nikolaou, 2014).

However, one of the limitations mentioned about LinkedIn is that it does not provide direct access to candidates' contact numbers or email addresses. This necessitates recruiters to do more detective work and search for these contact details in a variety of different places, such as Facebook and Google, once they have found a potentially good candidate on LinkedIn:

> 'For headhunting purposes I would go onto LinkedIn and identify candidates to call and then Google the company or look on our database or on one of the career portals for their phone number.' (P2, 43, 14 years' experience, Johannesburg, Engineering and IT)

LinkedIn is therefore not used as a stand-alone tool in the sourcing process, but more for the identification of potential candidates. After a prospective candidate has been identified on LinkedIn, various other Internet sites are utilised to find the contact details and to verify information. Using LinkedIn to identify potential candidates when screening for headhunting purposes is bound to be subject to the risk of profile inflation by candidates (Houran, 2017). However, the risk of profile inflation in the identification of potential candidates was not highlighted by any of the participants as a concern and is apparently not viewed negatively by recruiters in this sample.

International research has found that recruiters believe LinkedIn to have one of the highest success rates of any social media platform (Houran, 2017). The perceived success of LinkedIn was also confirmed in this study:

> 'I have made 2 placements out of LinkedIn Recruiter in the past 2 months that I would not have made if I didn't have LinkedIn Recruiter.' (P8, 43, 15 years' experience, Cape Town, Financial Services)

> 'The good thing is that when you find one good guy you just go into his network and look at all of his friends. LinkedIn is great.' (P1, 33, 9 years' experience, Johannesburg, Engineering)

The latter quotation also gives an indication of how LinkedIn is used to gather information about prospective candidates.

This observation is in agreement with observations made elsewhere in that social media is increasingly used to gather information about potential employees (Roth et al., 2016).

However, it appears that LinkedIn is still used less than other, more conventional platforms like job boards on career portals and corporate websites, or at least in combination with them (Allden & Harris, 2013). This international trend was supported by the findings of this study for South Africa. Although all the participants mentioned using LinkedIn somewhere in their recruitment processes, various participants indicated that they use it between 60% and 80% of the time for advertising positions. Only two participants (17%) mentioned that they use LinkedIn for each position they source:

> 'I still write ads for the career portals and for the company website 100% of the time and I do searches on the career portals about 50% of the time. LinkedIn I use for about 80% of my positions.' (P6, 29, 7 years' experience, Cape Town, Financial Markets)

Based on the preceding comments and quote about the use of career portals and websites, it is clear that LinkedIn is seen as a key recruitment tool in the sourcing process. However, it is also evident that at least some recruiters are still utilising the more traditional way of recruiting (namely, advertising) more than using LinkedIn. This approach seems to be aligned with views that the use of social media in recruitment does not stand on its own but must form part of a well-crafted, comprehensive recruitment strategy (Madia, 2011).

Theme 4: Social media is an important part of recruitment

Previous research indicates that placing an advertisement in popular media or on an organisation's website has a limited chance of attracting the right candidates (Phillips & Gully, 2012). However, the findings of this study suggest that traditional advertising approaches are still an important recruitment practice for recruiters. For all of the participants, the first step when receiving a new job to recruit a candidate for is to write an advertisement – as one would expect. The only change in this process is where the advertisement is placed; while in the past, recruiters would post their jobs in print media, 33% of the participants (4/12) indicated that they now post advertisements on their company websites and career portals, as well as on LinkedIn:

> 'My first step is still the same – 100% of the time I would write an ad; in the past I would place it in various print media, now I place it on the company website as well as the relevant career portals and then on LinkedIn, depending on how senior or how technical the job is that I'm working on.' (P6, 29, 7 years' experience, Cape Town, Financial Markets)

All the participants confirmed that they no longer place any advertisements in print media. Although participants still rely heavily on advertising to find candidates, the sites where they place their advertisements have shifted towards Internet media, in particular, career portals and social media such as LinkedIn:

> 'Advertisements? Probably 80–90% of the time, but no more print; LinkedIn 100% of time, referrals 100%, PNet and CJ 50%.' (P6, 29, 7 years' experience, Cape Town, Financial Markets)

> 'Advertising? Now – purely online.' (P8, 43, 15 years' experience, Cape Town, Financial Services)

This finding is in agreement with previous research that social media is used in combination with more conventional recruitment platforms like job boards, career portals and corporate websites (Allden & Harris, 2013; Tyagi, 2012).

This raises the question as to why recruiters still rely heavily on more traditional advertising methods such as career portals and organisational websites in the age of social media. Previous research indicated that one of the reasons why recruiters often still prefer more conventional sourcing tools is their limited knowledge of how to effectively recruit on social networking sites (Allden & Harris, 2013). The findings of this study show that this holds true only for Twitter. It would seem that the reason why some participants still prefer using the more conventional sourcing tools is that they have limited time and their perception is that social media adds much more work:

> 'I believe we're not using technology correctly – there are email inboxes, there are company inboxes, Gmail inboxes, there are LinkedIn inboxes, there is Facebook, there is Twitter … so recruiters aren't focused as it all seems too much.' (P11, 45, 20 years' experience, Johannesburg, Management Consultants)

> 'Social media adds a huge amount of volume to the sourcing process.' (P1, 33, 9 years' experience, Johannesburg, Engineering)

Participants indicated that they feel social media is providing everyone with access to the same candidates, whereas in the past recruiters had to pay for access to search for candidates on career portals or utilise their own databases. Everyone can now easily search for and connect with potential candidates through social media. However, participants feel that social media does not really give them a competitive edge, rather, it has increased competition as all recruiters now have access to the same information:

> 'Social media has created more competition for recruiters because everyone has access. All you need is a name and the names are on the Internet, specifically on social media sites. It's now down to who's better at headhunting and who's not, because everyone has access.' (P1, 33, 9 years' experience, Johannesburg, Engineering)

The above finding suggests that social media is increasing the competition for top candidates in sourcing and has become the proverbial 'ticket to the game' in order to compete for identifying and attracting the best talent, rather than providing a competitive edge. This finding differs somewhat from notions in the recruitment literature that the use of social media in the recruitment process provides recruiters with a competitive edge in reaching their recruitment objectives (Singh & Sharma, 2014). It appears, and was expressed by one of the participants, that the use of social media simply levels the playing field and has become an

essential part of the recruitment process just to be able to compete in the recruitment war for talent:

> 'LinkedIn is not DAV specific – 4.5 million people in SA are on LinkedIn – It levels the playing field.' (DAV refers to this recruiter's managing agency) (P8, 43, 15 years' experience, Cape Town, Financial Services)

Although this theme indicates that social media has become an important part of recruitment, 75% of the participants (9 of 12) agreed that they combine its use with the more traditional recruitment methods when sourcing active candidates. Specifically, participants indicated that when they recruit for more technical, senior passive candidates, they use a combination of different sourcing techniques, namely, utilising LinkedIn to identify potential candidates and then using headhunting techniques to lure them into becoming interested in the position:

> 'Depending on the job – if it's a rare skill I go directly to LinkedIn; if it's a not rare skill I go to PNet first and then only, if I don't find anyone, I go to LinkedIn.' (P5, 28, 5 years' experience, Cape Town, Financial Markets)

This could possibly indicate that for lower level and non-technical positions, the sourcing approach has not changed much. However, if recruiters are trying to attract more senior or technical candidates, especially those they classify as 'passive', they would search less on career portals and add LinkedIn and headhunting to their sourcing process:

> 'If I work on a lower level job, one that's technically not that complicated, I would advertise and go to the career portals and go to the database. If it was something more technical I would do similarly, I would always advertise and go to our database, but I would then do head hunting via LinkedIn and to a lesser degree go to job portals because the assumption is that if you are senior and technical, you're not really on the job portals; you're not active, you're more passive.' (P8, 43, 15 years' experience, Cape Town, Financial Services)

This finding is in agreement with previous research (Houran, 2017).

The growth of the Internet and social media has given rise to more and more ways to connect candidates and recruiters. However, this benefit adds a large volume of work to recruiters' desks. Rather than reducing work, one of the drawbacks of social media is the volume it adds to the sourcing process:

> 'I'm inundated with requests – I can't even keep up. I have about 100 requests pending. I think my [*LinkedIn*] network is close to 2000. A lot are referrals.' (P5, 28, 5 years' experience, Cape Town, Financial Markets)

The volume of work increases as a result of various aspects, such as the vast number of available candidates whose profiles are available to search and screen. This increase is compounded by the large number of candidates who have access to job advertisements through social media, resulting in a vast number of (often unqualified) applicants. This aspect was confirmed by 67% of the participants (7 of 12) in

the study. Participating recruiters felt that they are already stretched for time and that utilising the various channels of social media adds more strain to their already limited available time:

> 'Social media is quicker, but it creates more volume, less quality. There is less quality because people take more chances because there is easier access. In general, if you were forced to post your CV, you would think twice about it, vs. just sending an email.' (P1, 33, 9 years' experience, Johannesburg, Engineering)

> 'I get a lot of referrals on LinkedIn. I must say, the candidates haven't been great – it just adds to the volume.' (P3, 40, 20 years' experience, Johannesburg, Commercial/Financial)

This finding raises an interesting perspective regarding notions in the literature that social media reduces the 'spray and pray' approach (Dutta, 2014). Social media may give better access to the passive and semi-passive candidate pool and an improved ability to attract these candidates. However, the sheer volume of work and high number of candidates that emerge from using social media may inhibit the effective use of the acquired pool of potential candidates. This finding also relates to Houran's (2017) observation that anyone using LinkedIn, or recruiting through social media in general, has the challenge of appraising profiles. As such, one could question to what extent the use of social media provides a more focused approach rather than the 'spray and pray' approach. The question is: Is this not just another version of the 'spray and pray' approach?

Ethical considerations

This study was conducted under the guidelines for ethical research of the relevant university after the research proposal was approved by its Research Ethics Committee. Informed institutional permission for the research was obtained from the organisations from which recruiters were invited to participate in the study. Informed consent was obtained from all the participants. Participants were assured that confidentiality would be maintained by treating their responses as anonymous and that no names would be disclosed.

Discussion

The findings of this research confirm that the use of social media for recruitment in South Africa is high among recruiters and is an important part of their sourcing process. This finding is in line with research conducted elsewhere, which indicates that the use of social media in recruiting gains momentum as the number of users on social media increases (Dutta, 2014; Khullar & Pandey, 2014; Singh & Sharma, 2014). Recruiters recognise the potential that social media provides to attract not only active but also passive and semi-passive candidates. Similarly to elsewhere in the world, the use of LinkedIn in South Africa is much higher than the use of Twitter and Facebook. However, the use of Twitter and Facebook in South Africa was found to be substantially lower than for recruitment in comparison to what was recorded elsewhere (Jobvite, 2014). Although one can only speculate

on the reason for this difference, it appears to be related to the international nature of the Jobvite (2014) study and the South African focus of this study. As noted, South African recruiters appear to have a different approach towards the use of Twitter and Facebook for work purposes. One can thus not just assume that international trends apply indiscriminately to South Africa. It was further found that South African recruiters follow the practices of their international counterparts, with all participants mentioning the use of LinkedIn as central to their respective recruitment processes. The findings confirm Hunt's (2010, p. 37) conclusion that 'LinkedIn recruiting tools focus on finding candidates and networking online; while Facebook and Twitter recruiting tools focus on employer branding – an important part of engaging candidates'.

However, the size of a recruiter's personal Twitter network is an important aspect when considering its use. The view is that, to be able to use it effectively, a recruiter has to be very active on Twitter, with many 'followers'. One of the deterrents of using Twitter in the sourcing process is a small following and low activity, which gives recruiters the feeling that they will not achieve results that are worthwhile. As such, they rather focus their attention on those sourcing tools that they believe will offer them a larger reach and better results. This finding is similar to what was found in research elsewhere (Silliker, 2011). Recruiters' Twitter activity also relates to their knowledge of its use. The majority of participants mentioned that they do not use Twitter because they do not know how to use it properly. If recruiters were more exposed to training on how to effectively use Twitter in the sourcing process, they could arguably use it more frequently and effectively. However, even those participants who had been trained in the use of Twitter in the sourcing process mentioned that they feel Twitter consumes time, which they can use on more proven sourcing methods. It is clear that Twitter is not seen as an effective sourcing tool in South Africa for this sample of recruiters.

An important aspect that influences the minimal use of Facebook is its perceived image in South Africa as a communication tool on a personal and private level rather than a business tool. South African recruiters make a distinction between their private lives, represented by the use of Facebook for communication; and their professional lives, which is represented by LinkedIn. They keep these two aspects separate and seldom let the two overlap – even just in perceiving such an overlap. It is clear that Facebook is not seen as an effective recruiting tool in South Africa for recruiters. This finding is a new and unique perspective that holds important consequences for its use in recruitment in South Africa.

LinkedIn is clearly the most popular social media site in the sourcing process and seems to have taken over from company databases. While recruiters would have searched for candidates on their own database in the past, they now use LinkedIn as their new tool to search for potential candidates.

However, whereas the database was often seen as a stand-alone tool, LinkedIn in comparison is not used as such. Rather, after a candidate has been found on LinkedIn, various other Internet sites are utilised to find the contact details and verify information about that candidate. Although LinkedIn gives recruiters better access to the passive and semi-passive candidate pool and arguably provides an improved ability to attract these candidates, it also leads to information overload. The sheer volume of candidates that comes from using it restricts the effective and focused use of the pool. It appears that social media in the recruitment process is simply becoming a more modern 'spray and pray' approach. Recruiters 'spray' their attention to combing through LinkedIn profiles, and job seekers in turn 'spray' their CVs through social media in the direction of recruiters, with both parties 'praying' for a positive outcome. The main difference is that the process may now be a bit easier and more elegant than before. This is because it is electronically automated, but is where the overload occurs.

Notwithstanding the exponential rise of social media in recruitment, recruiters still do not regard it as the answer to all of their problems. Advertising on career portals and corporate websites still remains a key sourcing tool for recruiters in South Africa in identifying and attracting potential candidates. However, the locations where they advertise have shifted towards the Internet, specifically career portals, companies' own websites and to some extent LinkedIn. This contradicts previous research findings, that placing an advertisement in popular media or on an organisation's website seems to have only a limited chance of attracting the right candidates (Phillips & Gully, 2012).

These findings confirm Dutta's (2014) and Hunt's (2010) argument that, while social media can be seen as opening doors and having a profound impact on the way that recruitment functions, it should not be mistaken as the full recruitment strategy. Rather, the use of social media forms an essential part of an organisation's recruitment operations. Indeed, a well-designed, comprehensive recruitment strategy and process, and the effective utilisation of available information about potential candidates, may significantly assist the recruitment of employees who have the most suitable skills and competencies (Melanthiou et al., 2015).

Limitations of the study

This research was limited to the South African context and cannot therefore be applied to other settings. Moreover, because of the relatively small sample size of individual recruiters, the findings of this study cannot be applied to recruitment agencies or all recruiters in South Africa. In addition, only recruiters from recruitment agencies were interviewed; thus, the findings cannot be applied beyond this particular population to a broader recruitment population. The nature of the data collected through this study was specifically focused on gaining an understanding of the reasons why recruiters do or do not use social media during recruitment. As such, it did not focus on the detailed

workings and impact of recruitment through the various social media tools. It also did not focus on the expectations or experiences of recruitment from the candidates' point of view.

Recommendations for future research

There is scope for further research relating to the use and impact of social media on recruiters in corporate companies (internal recruitment) rather than in recruitment companies (external recruitment). This study focused on individual recruiters from recruitment companies only; more research is required that focuses on the use of social media by recruitment agencies themselves. The impact of training for recruiters in the use of social media, specifically Twitter, in the recruitment process is a further topic that has yet to be explored in more detail. Studies in the future may seek to use quantitative methods to do research that allows a much bigger sample size in order to validate the conclusions of this study.

Conclusion

This research set out to investigate the impact that social media has had on recruitment, specifically on the sourcing process. It provides a new insight into the impact of social media on recruitment in South Africa. The findings confirm that social media has become an essential part of the recruitment process. However, recruiters should be careful not to be seduced into a hype or frenzy about the use of social media in recruitment. Although recruitment through social media is useful and important, it has limitations and does not provide all the solutions to recruitment problems. Indeed, it may simply become another 'spray and pray' approach if used unwisely.

This study makes an important scientific and practical contribution to the understanding of effective recruitment processes. By confirming the importance of social media in recruitment in South Africa, at least as a parallel process to more traditional recruitment processes, the study confirms the increasing role and importance of social media within the South African talent management context. The study demonstrates that recruitment through the use of social media in South Africa differs from what is done elsewhere in the world – at least for this sample. One should therefore be careful not to just assume that the trends reported in international literature indiscriminately apply to South Africa. The finding that the main impact of social media on the recruitment process derives from LinkedIn is an important aspect that should be taken note of by researchers, recruiters and potential job seekers. It suggests that in order to be part of an effective recruitment process in South Africa, recruiters and job seekers have to be 'LinkedIn'.

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Authors' contributions

T.K. was the main researcher and was responsible for conducting the fieldwork and writing up the research. C.G. and J.J.d.K. supervised the research and made conceptual contributions to the study.

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Key competencies and characteristics of accommodation managers

Authors:
Walter Wessels[1]
Engelina du Plessis[2] [ID]
Elmarie Slabbert[2] [ID]

Affiliations:
[1]School for Business Management, North-West University, South Africa

[2]Tourism, Research in Economic Environs and Society, North-West University, South Africa

Corresponding author:
Engelina du Plessis,
lindie.duplessis@nwu.ac.za

Orientation: Tourism employees are trained by various higher education institutions, yet industry still voices its concern regarding the readiness of potential employees entering the tourism industry.

Research purpose: This article aims to critically assess the key competencies and personal characteristics needed by accommodation managers in the South Africa tourism industry based on the opinions of the industry itself.

Motivation for the study: Tertiary institutions in South Africa educate potential tourism employees in a variety of skills and knowledge. However, some employers are still of the opinion that these students are not adequately prepared for the demand of the industry. Therefore, the tourism industry feels that students are not employable, which creates challenges for students, tertiary institutions and the tourism industry.

Research, design, approach and method: It was achieved by collecting 254 self-administered questionnaires from graded tourism accommodation establishments in South Africa.

Main findings: Nine key competencies needed by accommodation managers were identified and the importance of certain personal characteristics was evident. Novel to this field of research, the latter was rated more important than the nine key competencies that hold implications for training institutions and the industry.

Practical/managerial implications: The implication of the study is that accommodation managers should be trained in a different manner and higher education institutions should revise their training methods and selection strategies to address the needs of industry.

Contribution: Effective selection and training of accommodation managers will improve not only business success but also contribute to the success and growth of the tourism industry.

Introduction

South Africa relies on the tourism industry as an economic contributor (Saayman & Geldenhuys, 2003; Tassiopoulos, 2011). It contributed 3% to the total gross domestic product (GDP) of South Africa in 2013 and is expected to grow at a rate of 3.9% by 2024 (World Travel & Tourism Council [WTTC], 2014):

> Tourism can be defined as an experience that begins and develops from the moment interaction takes place between tourists, job providers, government systems and communities aiming to attract, entertain, transport and accommodate tourists. (Saayman, 2009a, p. 2)

The accommodation sector is the largest sector within the tourism industry, employing 75 978 people (Slabbert & Saayman, 2003; Statistics South Africa, 2009). As the tourism sector in South Africa continues to grow, the need for accommodation expands (George, 2013).

Small, medium and micro businesses, of which accommodation establishments form a large percentage, contribute not only to employment, but also to a more stable social and political climate in South Africa (Koens & Thomas, 2015; Rogerson, 2004; Tassiopoulos, 2014). Any business in South Africa has to ensure economic growth, and thus ensure that South Africa becomes a sustainable travel destination for tourists (Maharaj & Balkaran, 2014). To improve sustainability and remain competitive, it is important to employ the right people on all levels of the business as they are considered key stakeholders in this industry. These employees are essential in service provision, satisfying the needs of guests, creating loyalty and positive word-of-mouth about the

business. The accommodation sector thus requires a very high service standard, essential for survival as quality service contributes to the return business (Hartman, 2011). All employees, particularly managers, are key players in the delivery of service (Lillicrap & Cousins, 2006) and a hands-on management style contributes greatly to guest satisfaction, good service and organisational performance (Mayaka & Akama, 2007).

Despite the important role that managers play in the service delivery process, there seems to be a lack of well-trained and educated managers in tourism industry (Jeou-Shyan, Hsuan, Chih-Hsing, Lin & Chang-Yen, 2011). This results in poor-quality experiences by guests (Kusluvan, Kusluvan, Ilhan & Buyruk, 2010), which result in an escalating effect, thus contributing to a decrease in visitor numbers. It is the task of higher education institutions to equip future employees with key managerial competencies (Baum, 2002) to be ready for the industry.

While analysing skills and knowledge on a management level is not new, most of the managerial competency studies previously undertaken have been based largely on international case studies with reference to developed countries such as North America, Asia and Western Europe (Baum, 2007; Killen, Jugdev, Drouin & Petit, 2011; Nolen, Conway, Farrell & Monks, 2010). The South African business environment is, however, different from these, because of its history, diversity, geography, political climate (Sewdass & Du Toit, 2014) and education levels. Therefore, this study aims to critically assess the key competencies and personal characteristics needed by accommodation managers in the South Africa tourism industry.

Literature review

The accommodation sector is one of the primary sectors in the tourism industry (McManus, 2000) that contributes greatly to a guest's satisfaction (Davies, Taylor & Savery, 2001). Accommodation establishments, in many cases fairly small, consist of different departments, inclusive of the front office, marketing and human resources, which all contribute to the overall guest experience (George & Hancer, 2008; Saayman, 2009b). The nature of these establishments requires managers who can handle a variety of situations and adapt to changes on a daily basis (Baker, 2001). Managers need to face and overcome challenges that influence the business environment (Amundson, 2005). Some of these challenges include working with different cultures (Weiermair, 2000), serving guests who are increasingly demanding (O'Neill, Williams, McCarthy & Groves, 2000) and satisfying the new type of tourist who demands to be part of the tourism experience, enhanced by human interaction (Kandampully, 2000). The new type of tourist also insists on making their own bookings and using advanced technology. They make greater demands for unique experiences, focus on their own well-being and require more privacy when staying at accommodation establishments (Lubbe, 2005; Saayman, 2009a).

Accommodation establishments are aware of these challenges and the effects that these exert on the establishment; thus, they rely on the skills and knowledge that the employees attained even before employment to assist with future direction, success and management of the challenges mentioned above (Anderson & Vinceze, 2000). A certain set of skills and knowledge is thus expected from accommodation managers, and as critical as it is, the exact draft of these for accommodation establishment managers is unknown.

Managerial skills necessary for managers in the tourism industry

Given the service orientation of the tourism industry and the nature of the accommodation sector, managers need to be equipped with multiple skills and knowledge to make a difference in the business (Hurd, Barcekona & Meldrum, 2008). Various studies have identified skills and knowledge needed by managers to effectively function in the hospitality environment, but the applicability and relevance of those to accommodation managers are unknown. After an extensive literature review of previous studies regarding skills and knowledge needed by managers in the tourism industry, the following were identified as recorded in Table 1.

As evident in Table 1, the first important set of skills and knowledge includes *forecasting skills and knowledge*. These are essential because of the extensive impact on the future development of accommodation establishments (Louw, 2011; Saayman & Saayman, 2008). Factors such as the price of service (Perloff, 2007), transport costs (Brakke, 2005), exchange rates (Forsyth & Dwyer, 2009), culture (Getz, 2008) and population (Hamilton, 2004) are some of the most important aspects that impact the future development of any accommodation establishment, and these can be forecast. Effective forecasting will guide all decisions in the establishment and assist in assessing the industry environment to the benefit of the establishment. It is, however, not known

TABLE 1: Skills and knowledge needed by managers in the tourism industry based on a literature review.

Skills and knowledge identified	Previous research
Industry forecasting skills and knowledge	Jeou-Shyan et al. (2011); Louw (2011); Saayman and Saayman (2008).
Strategic management skills and knowledge	Cecil and Krohn (2012); Harrington and Ottenbacher (2010); Killen et al. (2011).
Human resource management skills and knowledge	Baum (2012); Jeou-Shyan et al. (2011); Suh, West and Shin (2012).
Communication skills	Mmope (2010); Theunissen and Wan Noordin (2012).
Information technology skills and knowledge	Ewan (2012); Matjila (2008.
Problem solving and crisis management skills and knowledge	Brownell (2008); Shaw (2010); Tassiopoulos (2010).
Customer service skills and knowledge	Allen (2004); Brink and Berndt (2008); Cant and Van Heerden (2008); George (2013); Kotler, Bowen & Makens (2006); Lovelock and Wirtz (2011); Nolen et al. (2010).
Financial management skills and knowledge	Bowdin, Allen, O'Toole, Harris and McDonnell (2011); Lovemore and Brummer (2010); Sisson and Adams (2013).
Marketing and market analysis skills and knowledge	Cant, Gerber-Nel, Nel and Kotze (2008); George (2013); Tassiopoulos (2010).

Note: Please see the full reference list of the article, Wessels, W., Du Plessis, E., & Slabbert, E. (2017). Key competencies and characteristics of accommodation managers. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur, 15*(0), a887. https://doi.org/10.4102/sajhrm.v15i0.887, for more information.

whether this set of skills and knowledge is important to managers of smaller accommodation establishments.

Because of the intense focus on the daily operations of accommodation establishments, some managers might lose track of the strategic direction of the business. However, the capital and labour-intensive aspects of the accommodation industry (Harrington & Ottenbacher, 2010) force accommodation managers to set future goals (Jeou-Shyan et al., 2011) and make instant decisions that have long-term implications (Connolly & McGing, 2006). These studies emphasise the importance of *strategic management skills and knowledge* for managers, which might also apply to the set of skills and knowledge needed by accommodation managers.

Service in the accommodation sector relies on good human resources (Hartman, 2011; Haynes & Fryer, 2000). The ability of managers to effectively direct employees in knowing what is expected of them and delivering quality service is one of the core management competencies (Tsaur & Lin, 2003). Good *human resource management* also contributes to a decrease in the turnover rate of employees in the accommodation sector (Baum, 2012).

Communication skills are essential to all spheres of the establishment and various problems can arise from poor communication. Managers must display the ability not only to communicate internally with employees, but also to facilitate the external flow of communication with new and existing guests (Bang, 2004; Brown, 2001). Within the service environment, managers must be able to speak fluently directly to guests (Johanson, Ghiselli, Shea & Roberts, 2010). This skill is essential regardless of the department or level of management, according to Bobanovic and Grzinic (2011). Saayman (2009b) identified communication barriers, inclusive of failure to analyse the needs of the receiver as well as poor listening and feedback from management, as service success influencers. These barriers can be overcome by managers if they are able to communicate using various communication channels to ensure that the right message is conveyed and received by all parties influenced by the conveyed message (Ewing, 2007).

According to Ewan (2012), information technology enhances communication channels but there is still a lack of research on the importance and impact of information technology on communication amongst role-players in the accommodation industry. Information technology is developing at a rapid rate and the tourism industry is known for the utilisation of online programmes and mechanisms as part of the management of accommodation establishments. Information technology not only enables fast and flexible operation (Posavec, 2008), but also allows for easy access to a large amount of stored data influencing the service encounter between guest and establishment (Stamboulis & Skayannis, 2003). Implementing and utilising the correct information technology is therefore vital for accommodation establishments (Hudson & Gilbert, 2006; Sun & Howard, 2004) and managers must *master information technology* in order to ease operations.

Solving problems and being able to manage any crisis are essential skills for managers (Brownell, 2008; Richie, 2005), especially because this industry is about people. Kay and Russette (2000, p. 53) state that managers must ensure a win-win resolution approach for both the organisation and the guest. The ability of managers to solve problems will affect service provision of an accommodation establishment (Connolly & McGing, 2006) as well as the return rate of guests. The creation of an internal service culture, focusing on serving and satisfying guest needs (Kotler et al., 2006), might minimise problems. No accommodation establishment operates without encountering problems, which may include aspects such as billing errors, service catastrophes, unresponsiveness from employees and having limited product knowledge (Lovelock & Wirtz, 2011). These situations occur unexpectedly and the manager must demonstrate his or her ability to solve these situations.

Service is the foundation of the accommodation sector (Chathoth et al., 2014). Ensuring outstanding *service provision* is very costly for accommodation establishments and must be well managed (George, 2013). Rajaratnam, Munikrishnan, Sharif and Vikneswaran (2014) found that consumers who are satisfied with the service received will influence the image of the accommodation establishment positively through word-of-mouth. During the past 10 years, service quality has received the needed attention by academic institutions and hospitality practitioners (Dhar, 2015). The realisation of this led to action plans being put in place in order to minimise negative service experiences and maximise effective customer experiences (Allen, 2004) so as to contribute to positive financial prospects for the accommodation establishment (Burgess, 2007). Clearly, this is a critical aspect that needs to be managed.

Financial management, in the case of smaller accommodation establishments, mostly consists of monitoring the overall financial practice of an organisation (Lovemore & Brummer, 2010) and comparing spending patterns within a set budget (Bennet, Dunne & Carre, 2000). Even though many accommodation establishments have admitted that they outsourced their financial accounting function, it is no longer always possible because of the complexity and variety of all the internal departments and management control requirements (Burgess, 2007). Financial managers face certain challenges daily, which include gaining access to capital and managing the cost of employee turnover (Patiar & Mia, 2009). According to Tassiopoulos (2010), successful financial management and projection can be ensured only if a manager possesses the skill to calculate and implement good financial practice.

Lastly, various authors, as evident in Table 1, have emphasised *marketing* as an essential skill for accommodation managers (George, 2013; Kotler et al., 2006; Slabbert & Saayman, 2003). It is not about mass marketing anymore, it is about building long-term relationships with customers (Saayman, 2009a) and getting to know their needs. Marketing is changing on a daily basis and the electronic environment has created

exciting opportunities for managers to effectively reach their target markets. Effective marketing can assist in creating a competitive advantage, which is much needed in the accommodation sector where high levels of competition are evident. Understanding and utilising the correct marketing tools remain important (Cant et al., 2008).

Personal characteristics necessary for managers in the tourism industry

In addition to these skills and this knowledge, various sources have emphasised the importance of certain personal characteristics (Leiper, 2004; Page, 2007; Patiar & Mia, 2009; Sternberg & Zhang, 2000). According to Page (2007), a manager must display an investigative personality, while Patiar and Mia (2009) found that managers must display trust, provide inspirational motivation and promote intellectual stimulation amongst co-employees. Kay and Russette (2000) as well as Suh et al. (2012) identified that accommodation managers must be able to provide effective feedback to employees regarding their work performance, promote hard work, manage conflict and promote integrity in the workplace. Within the accommodation sector, managers must be able to act as mentors for employees (Leiper, 2004) and be able to take employee feedback into consideration to ensure personal development (Sternberg & Zhang, 2000).

With the accommodation sector showing continuous growth (McManus, 2000), Saayman (2009b) identified the ability to adapt in such an environment as an important characteristic for accommodation managers. However, to adapt in a changing environment brings about challenges for employees; therefore, accommodation managers must possess the ability to promote training opportunities to overcome the barriers to change (Hough & White, 2001).

It is clear that a challenging and ever changing external environment necessitates that managers possess a variety of skills and knowledge, enhancing certain personal characteristics enabling them to successfully manage an accommodation establishment. Even with this knowledge, a gap appears to exist between the offering of tourism higher education programmes and the needs of the tourism industry (Zehrer & Mössenlechner, 2009). This is supported by Swanson and Holton (2009) in studies that revealed that employees are not supplying the industry with the necessary skills and knowledge. Higher education institutions need updated insight from industry regarding these skills and knowledge in order to adapt education programmes where necessary and to present applicable programmes. This will directly contribute to the growth of the tourism industry and the employability of graduates. The question addressed by this article therefore remains: What are the key competencies needed by accommodation managers in the South African tourism industry?

Research design

The research design for this study was twofold: firstly, a descriptive research design was chosen to describe the profile of the respondents, while, secondly, exploratory factor analyses were performed to investigate the research question. The research method used is explained below.

Research method
Population and sampling

The target population consisted of tourism product managers on different management levels within the accommodation sector inclusive of all nine provinces in South Africa. The TGCSA's database, which assigns star grading to participants after assessment, was used as the sample frame for this study. The TGCSA has been in operation for the past 13 years and is a recognised quality assurance body for the accommodation sector, consisting of hotels, guesthouses, self-catering units, caravan and camping parks. The TGCSA is thus a very important role-player within the accommodation sector (TGCSA, 2013). The TGCSA grades on five levels ranging from one star status to five star status, where one star grading indicates basic room options and facilities and five star grading indicates luxury accommodation with a diverse range of facilities available to guests (TGCSA, 2013).

TGCSA had 5400 graded accommodation establishments registered with the organisation in the nine provinces of South Africa during 2014 (TGCSA, 2013) which served as the population for this research. The list of these establishments is public domain, and thus it was extracted from the website of TGCSA. From the complete list of graded establishments, stratification was firstly done by means of province and secondly the establishments were ordered alphabetical which resulted in a specific number of establishments per province.

According to Krejcie and Morgan (1970), a population size (N) of 5400, as provided by TGCSA, is represented by a sample size (s) of 360. To reach the representative sample of 360, the number of expected establishments was proportionally calculated per province (one per establishment). Simple random sampling was then applied where every 15th establishment on the list was selected from each provincial list to participate in the survey. If any of the pre-selected respondents declined the request to participate in the research, the next respondent on the list was chosen (Berndt & Petzer, 2011). In certain cases, a higher number of establishments participated because these had more than one manager.

Self-administered questionnaires were distributed over a period of 8 weeks (07 July 2104 – 09 September 2014). After each electronic questionnaire was sent out, a notification stating that the questionnaire had been received was sent back to the sender and a follow-up email was sent after every 5 days in order to ensure that the questionnaire was completed and received back in the allocated time.

A total of 360 (Table 2) questionnaires were distributed of which 254 completed questionnaires were returned by the participants in all nine provinces, resulting in a 70% response rate.

TABLE 2: Population (*N*), expected sample size (*s*) and actual sample size (*S*).

Province	Number of graded establishments (*N*)	Expected sample size (*s*) of total managerial employees	Actual sample size (*S*) total of managerial employees
Eastern Cape	693	47	22
Free State	123	7	17
Gauteng	801	54	32
KwaZulu-Natal	747	50	37
Limpopo	264	18	31
Mpumalanga	289	18	35
North-West	185	11	15
Northern Cape	199	14	16
Western Cape	2099	141	49
Total(s)	**5400**	**360**	**254**

Data collection methods

The development of a self-administered questionnaire was based on work carried out by various researchers (Cecil & Krohn, 2012; Nolen et al., 2010; Sisson & Adams, 2013; Suh et al., 2012); however, it has been used in its current format for the first time. The questionnaire consisted of two sections: demographic information of respondents (consisting of open and closed ended questions related to age and qualification level of each respondent) and characteristics and managerial competencies of an effective manager (consisting of a 5-point Likert scale where 1 was considered the least important characteristic and/or key competency and 5 was considered the most important characteristic and/or key competency of accommodation managers).

Data analysis

Descriptive statistics (profile of respondents) and factor analyses (characteristics and key competencies) were used to interpret the collected data. The data were processed by making use of SPSS© (Statistical Package for Social Sciences; Version 21.0, 2011). The exploratory factor analyses were performed to determine the underlying factors of managerial competencies and characteristics in the accommodation sector. The exploratory factor analyses attempt to produce a smaller number of linear combinations of the original variables in a manner that captures most of the variability in the pattern of correlations (Pallant, 2010).

Results

The results are reported in two sections: firstly, the profile of the respondents in the study is discussed and depicted in Table 3, whereas, secondly, the key competencies and characteristics are analysed and recorded in Table 4.

Profile of the respondents

In Table 3, it is evident that 26% of the respondents are either between 21 and 32 years of age or 65 years and older. Thirty-four per cent of all respondents had obtained a bachelor's degree at a university (49%) with 16% of respondents who had not studied towards a higher qualification of any sort. The majority of the respondents hold top management positions (64%) with 22% in middle management and 14% in entry-level management positions. The results also indicated

TABLE 3: Profile of the respondents.

Variable	Category	Percentage
Age	21–32 years	26
	33–43 years	14
	44–54 years	18
	55–64 years	16
	65 years and more	26
Department of employment in the establishment	Overall operations	49
	Front Office Department	9
	Food and Beverage Department	8
	Financial Department	5
	Human Resource Department	2
	Owner and manager	10
	General manager	9
	Other	8
Duration of employment in current position	0–5 years	62
	6–10 years	21
	11 years and more	17
Level of education	High School	16
	Certificate	3
	Diploma	33
	Bachelor's Degree	34
	Honours Degree	11
	Master's Degree	1
	Doctorate Degree	1
	MBA	1
Current management level	Top management	64
	Middle management	22
	Entry-level management	14
Type of education establishments where respondents studied	University	49
	College	20
	Hotel School	5
	Other	8
	None	18

that the respondents have been employed for less than 5 years in their current position.

Key competencies and personal characteristics of an accommodation manager

Using the principal component analysis extraction method, the exploratory factor analyses for each skills and knowledge set revealed one factor per set. The Bartlett's test of Sphericity ($p \leq 0.000$) was used to test for homoscedasticity (homogeneity of variances) and was verified in all cases. The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy can be viewed as highly reliable because the KMO range is between 0.832 and 0.945 (Pallant, 2010), indicating the adequacy of the data for factor analysis. In all cases, more than 63% of the variance was explained, which is highly acceptable (Pallant, 2010). Factor loadings higher than 0.4 were considered as adequate because of the exploratory nature of the analyses (Pallant, 2010). The Cronbach's αs were well above the expected 0.7 (ranging between 0.891 and 0.969), which indicates a high reliability and internal consistency of these factors (Pallant, 2010, p. 249) (see Table 4). This resulted in 10 factors identified in this study.

The results indicated that within each factor, there were key competencies that had to be displayed by accommodation managers as discussed below.

TABLE 4: Summative results of the exploratory factor analyses.

Factors	Aspects measured in each factor An accommodation manager should be or able to be:	Factorability information	Statistical value
Factor 1: Personal characteristics (20 aspects)	Trustworthy, intelligent, a planner, an evaluator, responsible, a decision-maker, resourceful, productive, sensitive, a good listener and creative	KMO	0.947
		Percentage of variance explained	67.79
		Cronbach's α (CA)	0.966
		Range of factor loadings	0.406–0.830
		Mean value	4.11
		Inter-item correlation	0.589
		Rank amongst factors	1
Factor 2: Forecasting skills (10 aspects)	Predict future developments that will influence expansions of the accommodation establishment, predict future human resource development and capacity building, predict future changes in consumer behaviour, predict any risks that have a direct influence on the accommodation establishment, predict accommodation preference, predict the effect of increased operational costs and predict competitive prices for accommodation establishment	KMO	0.918
		Percentage of variance explained	63.97
		Cronbach's α (CA)	0.935
		Range of factor loadings	0.590–0.879
		Mean value	3.59
		Inter-item correlation	0.593
		Rank amongst factors	8
Factor 3: Strategic management skills (14)	Formulate strategic plans for an accommodation establishment, conduct an environmental analysis, formulate internal policies, practice strategic control, manage change within the accommodation establishment, analyse the external environment and plan effective resource application within the accommodation establishment	KMO	0.945
		Percentage of variance explained	70.78
		Cronbach's α (CA)	0.955
		Range of factor loadings	0.637–0.797
		Mean value	3.56
		Inter-item correlation	0.605
		Rank amongst factors	9
Factor 4: Human resource management skills (17)	Create opportunities for career development, provide training opportunities, motivate employees, provide feedback on employee performance, communicate all management strategies to employees, match employees with available positions, facilitate teamwork, manage the effects of seasonal employees on an accommodation establishment, plan and implement focused human resources strategies, practice successful performance evaluation, influence the service behaviour of employees and determine the factors that contribute to employee turnover	KMO	0.934
		Percentage of variance explained	73.39
		Cronbach's α (CA)	0.969
		Range of factor loadings	0.631–0.809
		Mean value	3.64
		Inter-item correlation	0.649
		Rank amongst factors	6
Factor 5: Problem solving and crisis management skills (8)	Make informed decisions, solve daily problems, identify challenges and implement new strategies to reactively solve these problems, think critically, act professionally in different situations	KMO	0.929
		Percentage of variance explained	78.50
		Cronbach's α (CA)	0.961
		Range of factor loadings	0.748–0.822
		Mean value	3.85
		Inter-item correlation	0.754
		Rank amongst factors	3
Factor 6: Communication skills (12)	Effectively interact with employees, interpret internal communications, manage communication barriers, implement effective internal communication strategies, communicate on different levels and build relationships with investors	KMO	0.916
		Percentage of variance explained	74.31
		Cronbach's α (CA)	0.946
		Range of factor loadings	0.534–0.854
		Mean value	3.68
		Inter-item correlation	0.601
		Rank amongst factors	5
Factor 7: Information technology skills (6)	Use different technologies, operate MS Office, initiate new forms of technology for the accommodation establishment	KMO	0.832
		Percentage of variance explained	65.39
		Cronbach's α (CA)	0.891
		Range of factor loadings	0.489–0.773
		Mean value	3.60
		Inter-item correlation	0.582
		Rank amongst factors	7
Factor 8: Customer service skills (7)	Build customer relations, deliver a product as promised, monitor consumer satisfaction, develop a service culture amongst employees, develop and provide new ways of improving sustainable quality	KMO	0.897
		Percentage of variance explained	77.20
		Cronbach's α (CA)	0.949
		Range of factor loadings	0.569–0.860
		Mean value	3.90
		Inter-item correlation	0.731
		Rank amongst factors	2
Factor 9: Financial management skills (9)	Monitor all financial activities of the accommodation establishment, identify financial challenges, interpret financial statements, determine the break-even analysis, construct and develop a budget, determine the right price for products and services and manage current financial assets	KMO	0.916
		Percentage of variance explained	73.68
		Cronbach's α (CA)	0.955
		Range of factor loadings	0.618–0.806

TABLE 4 (Continues...): Summative results of the exploratory factor analyses.

Factors	Aspects measured in each factor An accommodation manager should be or able to be:	Factorability information	Statistical value
		Mean value	3.72
		Inter-item correlation	0.703
		Rank amongst factors	4
Factor 10: Marketing skills (7)	Conduct market research, identify the market by means of market segmentation, compile a marketing plan, interpret marketing research and findings and launch and manage a marketing campaign	KMO	0.912
		Percentage of variance explained	80.77
		Cronbach's α (CA)	0.960
		Range of factor loadings	0.769–0.849
		Mean value	3.54
		Inter-item correlation	0.775
		Rank amongst factors	10

Factor 1: Personal characteristics

The results indicated that the first factor, labelled personal characteristics, which had a mean value of 4.11 and a Cronbach's α of 0.966, is the most important factor amongst the 10 identified factors. The top three characteristics to be displayed by an effective accommodation manager include trustworthiness (M = 4.52; SD = ± 0.735), responsibility (M = 4.39; SD = ± 0.799) and self-motivation (M = 4.26; SD = ± 0.773). Being sensitive was rated as the least important characteristic (M = 3.82; SD = ± 0.957). This finding supports the results of similar studies that indicated the importance of certain characteristics in a management position (Baum, 2007; Nieuwenhuizen & Rossouw, 2012; Patiar & Mia, 2009; Thekiso, 2011); however, the extent of its importance in comparison to management competencies is novel on a management level in this industry. According to Cronje, Du Toit, Motlatla and Marais (2006), personality characteristics influence job performance; therefore, it should play a role in the selection of students applying for tourism management programmes in higher education institutions. It is evident that certain personality characteristics add significant value to the task of managers in the accommodation sector in the same vein as accountants need to be focused on detail and nurses need to be caring. To a certain extent, these characteristics cannot be trained for and can be considered as inherently part of a person (Horng, Tsai, Yang, Lui & Hu, 2016; Leung & Law, 2010). To become a manager in the accommodation sector requires a certain set of characteristics that should play a role in selection and admission processes. More than that during job interviews, a number of questions directly relate to personality characteristics and thus there is value in taking cognisance of this as part of training.

Factor 2: Forecasting skills

The forecasting skills factor ranked eighth most important amongst the set of skills and knowledge with a mean value of 3.59 and a Cronbach's α of 0.935. The most important forecasting skills include the identification of the effect of increased operational costs (M = 3.74; SD = ± 0.866), risk prediction (M = 3.72; SD = ± 0.850) followed by the ability of a manager to predict the effect of seasonality on the accommodation establishment (M = 3.71; SD = ± 0.892), a unique attribute of the tourism industry. In a study conducted by Louw (2011), it was concluded that managers in accommodation establishments must be able to predict future developments in order to successfully interpret tourist behaviour and consumer demands. Given the growth of the tourism industry in South Africa, the change in source markets and the development of domestic markets (WTTC, 2014), management needs this skill to grow the organisation. Notwithstanding the importance of forecasting skills in the literature, this ability was not amongst the top three management skills identified by respondents.

Factor 3: Strategic management skills

The strategic management skills factor, with a mean value of 3.56 and a Cronbach's α of 0.955, ranked the ninth most important factor. The important aspects in this factor included the ability of managers to react swiftly to changing external environments (M = 3.73; SD = ± 0.778), their ability to manage internal change (M = 3.69; SD = ± 0.818) and their ability to formulate goals (M = 3.66; SD = ± 0.801). Even though the importance of strategic management is evident in various studies, it was not considered critical in this study. Saayman (2009b) states that strategic management consists of more than just a vision and mission; it includes situational analysis that includes all aspects of the external environment, the formulation of strategic plans for an establishment to survive during any change in the external environment, the ability to implement the strategic plans and to ensure that strategic control is practised regarding the strategies implemented. Jeou-Shyan et al. (2011) state that a manager must be able to form goals and evaluate the applicability of these to decisions. Mason (2007) stated that strategic management skills are important for accommodation managers, enabling them to create a stable internal environment, especially in an ever changing external environment. In the case of this study, either the respondents do not consider strategic management important for the accommodation establishments per se or they function on a more short-term management level, and do not realise the value of strategic management skills.

Factor 4: Human resource skills

This factor was ranked as the sixth (M = 3.64) most important factor for this study. According to Tsaur and Lin (2003), service orientation organisations must realise the important role of human resource management. The results in this study correlate with findings in the literature. The key competencies evident in the human resources management factor (M = 3.64), with a Cronbach's α of 0.969, include a

manager's ability to motivate employees (M = 3.85; SD = ± 0.817), facilitate teamwork (M = 3.81; SD = ± 0.794) and to facilitate problem solving amongst employees (M = 3.81; SD = ± 0.813). Building a positive relationship between management and the employees is of great importance (Kusluvan et al., 2010). It becomes even more important to invest in employees to ensure an effective team working at the establishment in order to minimise staff-turnover and optimise a constructive working environment (Spowart, 2011).

Factor 5: Problem solving and crisis management

This factor (M = 3.85) with a Cronbach's α of 0.961 indicated that the key competencies for the factor problem solving and crisis management consisted of the ability of managers to act professionally in different situations (M = 3.97; SD = ± 0.868), followed by the ability to practise effective crisis management (M = 3.90; SD = ± 0.854). The results also indicated that it is important for managers to lead inexperienced employees within the accommodation establishment (M = 3.86; SD = ± 0.775). This was the third most important factor and supports Brownell (2008, p. 138) who states that hospitality managers must implement new strategies in order to successfully solve everyday problems. These skills are essential for the rapidly changing environment that the accommodation sector faces (Middleton, 2002).

Factor 6: Communication skills

The communication skills factor, ranked as the fifth factor, calculated a mean value of 3.68 and a Cronbach's α of 0.946. Good communication skills are dependent on effective interaction with employees (M = 3.83; SD = ± 0.758), managers' ability to communicate on all management levels (M = 3.78; SD = ± 0.764) and their ability to communicate in English (M = 3.76; SD = ± 0.858). This correlates with previous research which found that managers must be able to construct their message very carefully as this can be a great barrier if employees misinterpret the message provided (Huebsch, 1986). Mmope (2010) adds that managers must be able to communicate vertically, laterally and diagonally. Clearly, effective training is critical to improve and support managers' communication abilities.

Factor 7: Information technology skills

Key competencies in the information technology factor (M = 3.60) with a Cronbach's α of 0.891 included managers' ability to effectively use social media platforms to communicate vital information to guests (M = 3.71; SD = ± 0.847) as the most important aspect. This was followed by the ability to use different technologies within the accommodation establishment (M = 3.70; SD = ± 0.757) as well as the ability to operate MS Office (M = 3.68; SD = ± 0.850). This factor ranked seventh amongst the 10 factors identified. A study conducted by Ewan (2012, p. 1) found that a very limited understanding of the real effect that information technology has on an organisation is still prevalent amongst accommodation managers, as was the case in the current study. Making use of information technology can act as a cost saver, allowing small accommodation establishments to play in the bigger industry (Hudson & Gilbert, 2006). The application of information technology to the business environment consequently becomes more and more important.

Factor 8: Customer service skills

As indicated in the literature, customer service skills were rated as highly important (second most important; M = 3.90; α = 0.949). The main contributors to this factor were managers' ability to build customer relationships (M = 3.98; SD = ± 0.833), providing sustainable customer satisfaction (M = 3.98; SD = ± 0.845) and developing a service culture amongst employees (M = 3.96; SD = ± 0.847). These findings support Kotler et al. (2006) who stated that organisations offering a service must develop an in-house service culture, and that this development starts with top management. Allen (2004) adds that personal relationships can be built between the organisation and the guest, through accommodation, and service needs satisfaction. These aspects are very important because excellent customer service contributes to a customer returning to an accommodation establishment in future (Hartman, 2011).

Factor 9: Financial management skills

Financial management skills remain a critical aspect, even in accommodation establishments of different sizes. This factor was considered to be the fourth most important factor (M = 3.72; α = 0.955). Managers must be able to monitor all financial activities of the accommodation establishment (M = 3.89; SD = ± 0.829), be able to determine the right price for products and services (M = 3.84; SD = ± 0.833) and construct and develop a budget within an establishment (M = 3.80; SD = ± 0.871). Lamminmaki (2008) notes that small, medium and micro organisations (SMME), under which the accommodation sector falls, tend to experience financial challenges; therefore, these competencies are extremely important for successful business management (Bowdin et al., 2011).

Factor 10: Marketing skills

The marketing skills factor (M = 3.54; α = 0.960) was considered to be the least important skill for managers. This factor included the knowledge of compiling a business plan (M = 3.61; SD = ± 0.800), the ability to determine the return on investment of marketing campaigns (M = 3.60; SD = ± 0.816) and launching and managing a marketing campaign (M = 3.58; SD = ± 0.813). This differs from the literature where George (2013, p. 14) states that marketing skills are vital, especially for small accommodation establishments, in order to survive in the current competitive environment.

In Table 4, it is evident that the top three skills and characteristics included personal characteristics (M = 4.11): customer service skills (M = 3.90), problem solving and crisis management skills (M = 3.85). Although all the identified skills and knowledge should be taught at higher education institutions, it is clear where the specific focus should fall.

Discussion

This research supports various studies regarding important management skills needed in the tourism industry. The focus on the South African accommodation sector makes the results very focused and unique in their identification and ranking of 10 key managerial competencies and personality characteristics. The findings led to the following four implications.

Firstly, the most significant finding of this study was that the aspiration to be an accommodation manager requires certain personal characteristics. This is something that cannot be taught or trained: it is inherently part of one's personality. This finding significantly changes the way higher education institutions select students for tourism management programmes. It is not only about grade 12 marks, but also about personality. Now, it is thus more than ever necessary for students to undergo aptitude and personality tests before entering education institutions and the industry to fit the profile of tourism accommodation managers.

Secondly, it was found that most participating managers were either fairly young or close to retirement and they hold either a diploma or a degree. This emphasises the importance of developing and presenting tailor-made management programmes to the graduates who will ensure that more of the latter enter and remain in the industry. The notion of being an all-rounder was also evident, especially in the accommodation sector. This study highlights where the focus should be placed in education programmes that will support the training of the all-rounder concept of a manager.

Thirdly, it was found that the industry holds high expectations of its managers. These managers should immediately deliver services as expected by the industry. The more that higher education institutions can equip students with the necessary skills and knowledge, the easier it will be to access the industry, the better these students will be prepared for the challenges and the longer they will stay in the industry. Training programmes that promote continuous learning while working in the industry should be supported.

Fourthly, the importance of customer service, problem solving and crisis management and financial management were all evident. Although most of the competencies are important, these three will mainly contribute to the success of managers and ultimately of the establishment. Again, the entry requirements to higher education institutions should address this finding because management programmes should require mathematics at entry level, and the structure of the programme should practise and emphasise customer service and solving problems. Students should be exposed to real-life scenarios where they can practise these skills and be better prepared for the industry. Programmes not currently offering work-integrated learning should consider the inclusion thereof but also plan carefully the content of these learning programmes. Training institutions can even consider setting up tourism and hospitality labs where these skills can be practised and assessed on a continuous basis. These three are therefore not only about knowledge, but also include a practical component to be practised prior to employment.

Conclusion

The aim of the article was to critically assess the key competencies and personal characteristics needed by accommodation managers in the South African tourism industry. Two-hundred and fifty-four respondents from graded accommodation establishments responded to questionnaires on this important topic. These respondents were seemingly well qualified, have worked in industry between 0 and 5 years and are responsible for overall operations on various management levels. The factor analyses revealed 10 key managerial competencies and certain personal characteristics to be important. Amongst the 10 factors, personal characteristics were found to be the most important factor that affects the admission requirements for students to be admitted to higher education institutions. The accommodation sector requires specific personality characteristics to fit in this sector. The importance of customer service skills, problem solving skills and financial management skills is also evident. Higher education institutions should re-assess their current programmes to determine whether these topics have been extensively covered in training and whether this addresses the needs of industry currently. With that being said, it was also clear that being an all-rounder manager in the accommodation sector gives one the edge as a manager in this sector. Based on these scientific research findings, managerial training programmes in tourism management can be adapted for the first time in South Africa. This study contributes significantly to both the accommodation sector and higher education institutions in South Africa offering tourism management programmes where significant and creative adjustments and alternative training methods might be needed. For future research, this measuring instrument may be used in other sectors of the tourism industry to determine similarities and differences between the sectors. This will exert a significant influence on the development of training programmes for specific sectors.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

W.W. conducted the research for his master's degree and therefore wrote the concept paper. E.d.P. was supervisor of this study and E.S. was the co-supervisor. Both these supervisors assisted in writing the final manuscript.

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Experiences of community service environmental health practitioners

Authors:
Anusha Karamchand[1]
Emilie J. Kistnasamy[1]

Affiliations:
[1]Department of Community Health Studies, Durban University of Technology, South Africa

Corresponding author:
Anusha Karamchand,
anushak@dut.ac.za

Orientation: The community service initiative, a 1-year placement of health graduates, significantly improved human resource availability in the South African public health sector, even though the process was fraught with challenges. Although experiences in the curative health sector were assessed, the experiences of environmental health practitioners were yet to be studied.

Research purpose: This study assessed the experiences of environmental health practitioners during their community service year.

Motivation for the study: Anecdotal evidence suggested problems with the process. This study endeavoured to identify the challenges whilst taking cognisance of its effectiveness.

Method: A total of $n = 40$ environmental health graduates from the Durban University of Technology who had concluded community service completed questionnaires in this cross-sectional quantitative study. Descriptive statistics, means and standard deviations were used to analyse the data.

Main findings: The timing of community service placements was critical as 58% of respondents had to repay study loans. The placement of married respondents (10%) outside KwaZulu-Natal, however, could have had impacts on family structures. Only 68% felt stimulated by their job functions, and there arose challenges with accommodation and overtime duties. Respondents felt that their tertiary education did equip them and that engagement with senior personnel helped in their professional development. Even though most of the review of the community service year appeared to be positive, a majority of respondents did not intend to continue working or recommending their workplaces. Future career pathing showed that 79% would prefer to be employed outside the public sector.

Practical and managerial implications: The process needs to be reviewed to strengthen human resource management and enhance retention in the often overloaded and under-resourced South African public health sector.

Contribution: Relevant stakeholders can better plan, communicate and support affected parties through empowering management structures and providing logistical aid.

Introduction

The community service initiative was a compulsory 1-year placement of most health professionals on completion of their primary diploma or degree in the public sector, failing which they would be unable to enter professional practice (Department of Health, 2011). This initiative significantly improved the availability of human resources and began in 2001 with the compulsory placement of doctors, dentists and pharmacists followed in 2004 by other categories of health professionals (Harrison, 2009).

The initiative had two policy objectives, namely (1) to achieve better distribution of human resources for health (HRH) to underserviced areas and (2) to create an enhanced environment for gaining experience (Report of the Community Service for Health Professionals Summit held on the 22nd April 2015). Given these objectives, South Africa subsequently developed an HRH strategy which also considered the WHO recommendations on the recruitment and retention of health professionals in rural and remote areas (Department of Health, 2011). Table 1 shows the three strategic objectives of the HRH strategy for the health sector (2012/2013–2016/2017) as applicable to community service.

The community service initiative, however, has encountered many challenges as evidenced, for example, by Gurnell (2003) who equated community service to a conscription campaign. Similarly,

TABLE 1: Human resources for health strategy for the health sector (2012/2013–2016/2017) as applicable to community service (Department of Health, 2011).

Strategic objective	Aim
Strategic Objective 6: Professional Human Resource Management	To effectively manage human resources in a manner that attracts, retains and motivates the health workforce to both the public and private sectors in an appropriate balance
Strategic Objective 7: Quality Professional Care	To develop a health workforce that delivers an evidence-based quality service, with competence, care and compassion
Strategic Objective 8: Access in Rural and Remote Areas	To promote access to health professionals in rural and remote areas

Source: Department of Health. (2011). *HRH strategy for the health sector: 2012/13–2016/17*. Pretoria: Department of Health

although a bit more restrained, community services doctors observed that the placement process and the lack of criteria for approved facilities were problematic but they also felt that in spite of this, their contributions were impacting upon disadvantaged communities (Bateman, 2003). There is still though the question by community health experts about the impact of community service when infrastructure and supervision is often dismal, even if 10 healthcare disciplines saw 11 847 graduates through the public sector in 6 years (Bateman, 2004).

Reid (2002) expressed that there was concern in the delivery of community service, particularly in the following areas:

- the disjuncture between academic training and the practicalities evidenced in the public health sector
- the management deficiencies in the public health system
- the annual burden on senior staff who have to orientate, mentor and train each new group
- the alarming number of young health professionals who intend to work overseas.

He further noted that historically, one of these healthcare disciplines, namely environmental health, appeared to be well below average in terms of delivery, particularly in the rural areas where it was most needed.

Agenbag and Gouws (2004) study showed that there were fragmented and poorly distributed environmental health services at a provincial and national level where additionally environmental health practitioners (EHPs) contributed to an already substandard delivery of service by being inappropriately employed. Further, although community service was initiated to solve these issues, numerous concerns on both the side of the employer and the prospective employee arose. These ranged from lack of finance to opening frozen posts to accommodating community service EHPs and the feasibility of employing EHPs who may not be sufficiently equipped to be effective employees. The aspirations and career pathing of the community service EHPs also needed to be determined and whether they were adequately prepared to undertake community service. An added concern was that EHPs that entered community service straight from tertiary institutions have very limited practical experience.

Purpose

Anecdotal evidence suggested that there were problems with placements and job satisfaction since the introduction of

compulsory community service for EHPs. To date, however, and after an intensive literature review, no study was undertaken to identify the actual problem areas or the effectiveness of community service for EHPs in South Africa. The purpose of the study, therefore, was to assess the experiences of EHPs during their community service year.

Literature review

Introduction

The 1-year period of compulsory community service for health professions was initially implemented for medical doctors, dentists and pharmacists who were routinely allocated for a 12-month period of service in public institutions that had been registered for community service (Reid, 2002). The regulation relating to EHPs was promulgated by an amendment under Government Notice R69 in January 2002 with the effective date being from the year 2003. Other professional groups included were physiotherapists, occupational and speech therapists, clinical psychologists, dieticians and radiographers. The main objective of community service was to ensure improved provision of health services to all citizens of South Africa. In the process, it also provided these newly qualified professionals with an opportunity to develop skills such as acquiring appropriate knowledge and behaviour patterns as well as critical thinking that will help their professional development (Reid, 2002). Additionally, if these various categories of health professionals failed to complete or were not placed for community service, they could not be registered by the Health Professional Council of South Africa (HPCSA) to practise in the public sector (National Department of Health, 2004).

Application and allocation process

All graduates and final year students, including those that had participated in this study, had completed a standard application form issued by the National Department of Health (NDOH) and returned these to their tertiary institutions (National Department of Health, 2004). Each applicant was allowed five choices of approved or gazetted health facilities. Each tertiary institution then submitted the completed forms to the NDOH for processing. These forms are sorted according to provinces who had initiated the allocation process on a needs basis. Unplaced applications were returned to the NDOH. The NDOH held a second allocation meeting based on pending vacancies in other provinces. A second list of available or vacant posts in other provinces was circulated to tertiary institutions for students to reapply. The same allocation process started again. When chosen, the applicant was issued with a letter of employment or a contract. Non-placed students chose to either further their studies if finances allowed them to do so or stayed at home. Others sought casual labour or started working in the private sector.

Shortages of environmental health practitioners mainly in rural and homelands

Agenbag and Gouws (2004) found that there was a huge shortage of EHPs especially in the rural areas (former

homelands) where there were between 55% and 100% understaffed environmental health departments. These findings appeared to be consistent with data provided by the South African Health Systems Trust (1999) which showed that there had been no substantial increase in the number of EHPs employed nationally since 2005. Further, there was no data available on the distribution of environmental health personnel between rural and urban areas. Another concern that was expressed was the mismanagement of environmental health services where EHPs, for example, were being used in functions unrelated to environmental health. This was further exacerbated by lack of expertise and inconsistent provision of services between districts and provinces.

Communique by the Department of Health

A communique by Cheyne (2007), assistant manager delegated for the placement of community service personnel in KwaZulu-Natal, under the direction of the Department of Human Resource Practices in the Department of Health, noted that with the devolution of power to district level the continued placement of community service was proving problematic in that these devolved authorities were, in effect, autonomous and not empowered to take on community service. The major area of concern was financial constraints, and despite Treasury making funds available, this was not necessarily a standardised procedure. Further, two areas that were of concern was the availability of office space and EHPs not having their driving licences, which made them ineffective as additional funds were needed to provide drivers. Additionally, environmental health services had received minimal attention, because of a longer than anticipated transformation process and a focus on curative health services contributing to less than required resources allocated to environmental health. An additional bias was that urban environments received more attention than rural areas which in turn contributed to a restriction in the building of capacity and resources. Cele (2012) also voiced the concern that since 2007, the placement process for EHPs was a serious challenge for the Department of Health who subsequently amended the Regulation for Community Service which allowed municipalities to employ community service EHPs.

Method

Research approach

This cross-sectional study was conducted during May–October 2013 and undertaken in partial fulfilment of an Honours research project in the field of Office Management and Technology at the Durban University of Technology (DUT). Respondents were recruited as per the inclusion criteria noted under the Measures section. After all ethical procedures were complied with, respondents were assigned self-administered questionnaires via electronic mail or personal collection. Returned and completed questionnaires were checked for errors and the information was captured and analysed using Stata 13.1.

Measures

Participants

The population consisted of all former environmental health graduates from the DUT. Additionally, inclusion criteria were as follows: EHPs who were resident and working in South Africa, had completed community service in South Africa and were graduated or current Environmental Health B-Tech (Honours) students at DUT.

Measuring instrument

The data collection instrument was a questionnaire that was developed based on similar studies in the health field (Parker et al., 2011; Reid, 2001). It consisted of six sections: (1) socio-demographic characteristics of respondents (with information required ranging from current profession, demographics to tertiary institution and year that the diploma was received); (2) community service placements (including questions on year placed, whether in or outside KwaZulu-Natal, employer, allocation process and convenience of workplace); (3) community service job functions (closed questions concerning job stimulation, decision-making powers, provision and satisfaction with accommodation and overtime duties, and remuneration thereof); (4) the community service year consisted of two categories: (1) a review of the community service year and (2) factors that contributed to professional development. Respondents answered using the Likert Scale ranging from 1 = strongly agree; 2 = agree; 3, = disagree to 4, = strongly disagree for a 12-item and 6-item scale, respectively; (5) future career plans (included questions on where do you plan on working once you have completed community service and at what stage of your education or career did you decide on these plans) and (6) suggestions to improve the environmental health community service programme.

Research procedure

Potential participants were recruited via electronic media. Sixty potential participants responded. If they wished to participate in this study, each was given a letter of information and an informed consent form to complete. The consent form outlined the motivation and purpose of the study and noted that any data collected will be treated with confidentiality. All participants that met the inclusion criteria and had signed the informed consent completed a self-administered questionnaire. The final sample size was $n = 40$.

Statistical analysis

The capturing, cleaning and coding of data was performed using Stata 13.1. Descriptive statistics were used to determine the socio-demographic characteristics of the respondents. After initial descriptive analysis, frequency distribution of categorical variables was calculated. For the review of the community, service year and the factors that contributed to professional development, means and standard deviations were calculated.

Results
Socio-demographic characteristics of respondents

As noted in Table 2, the majority of the respondents (57%) were EHPs with 78% African, 60% single and 75% female. Seventy-five per cent of respondents were in the category of 19–30 years with 48% resident in Durban. No respondents had received study bursaries but 58% had taken a financial loan to pay for their studies which would be paid back on completion of their studies. There were plans by 45% of respondents to repay their financial obligations, whereas 26% undertook service payback.

Community service placements

Majority of community service placements (95%) occurred between 1 and 2 years after student graduation with the exception of 5% of the respondents. The 5% graduated prior

TABLE 2: Socio-demographic characteristics of respondents ($n = 40$).

Socio-demographic characteristics	Frequency	% age
Current profession (end 2013)		
Environmental Health Practitioners	23	57.50
Occupational Health & Safety Specialist	10	25.00
Waste Management Officer	1	2.50
Other	6	15.00
Gender		
Male	10	25.00
Female	30	75.00
Marital status		
Married	15	37.50
Single	24	60.00
Other	1	2.50
Race		
African	31	77.50
Indian	9	22.50
Age group (years)		
19–30	30	75.00
31–40	9	22.50
41–50	1	2.50
Home town		
Durban	19	47.50
South Coast	8	20.00
North Coast	5	12.50
Other	8	20.00
Primary language		
English	9	22.50
Xhosa	2	5.00
Zulu	29	72.50
Tertiary institution where diploma received		
Durban University of Technology	27	67.50
Mangosuthu University of Technology	12	30.00
Other	1	2.50
Year diploma received		
2006 and before	12	30.00
2007	7	17.50
2008	4	10.00
2009	5	12.50
2010	8	20.00
2011	3	7.50
2012	1	2.50

to 2007 and in 2007 but were only, respectively, placed in 2011 and 2010. From the 78% of respondents who were placed in KwaZulu-Natal, 18% were male and 60% female, with 27% married and 50% single. Those placed outside the province comprised 7% male and 15% female, with 10% married and 10% single. Respondents were employed as follows: municipalities = 48%, Department of Health = 50% and 2% did not respond (Table 3). No respondents received a rural allowance.

Community service job functions

Although 90% of respondents were mainly engaged in fieldwork, 10% did spend the majority of their time undertaking administrative duties. Only 68% felt stimulated by their job functions. Decision-making powers were afforded to 50% of respondents in carrying out their job functions. Employers provided accommodation for 23% of the community service employees but 56% were not satisfied with the provided accommodation. Special overtime duties were performed by 33% of the participants with only 23% receiving overtime pay for doing so.

The community service year

The community service year was divided into two categories, namely a review of the year and factors that contributed to professional development. Tables 4 and 5 show lists of items in the two categories with their accompanying means and standard deviations.

In Table 4, results showed that participants highly disagreed that they will stay on working at the same workplace (mean = 2.94, SD ± 1.07) and that their attitudes towards CS did not become more negative because of their experiences (mean = 2.93, SD ± 1.02). High agreement was noted in tertiary education equipping respondents for their placements (mean = 1.58, SD ± 0.71) and on feelings of having contributed towards the health of the communities that they served (mean = 1.75, SD ± 0.71).

In Table 5, results showed that participants highly disagreed that working overtime contributed to their professional development (mean = 2.82, SD ± 0.92), whereas it was highly agreed that mentorship and support (mean = 1.90, SD ± 0.79), support from management (mean = 1.90, SD ± 0.81) and engagement with senior EHPs (mean = 1.90, SD ± 0.85) did enhance professional development.

TABLE 3: Community service placements.

Community service placements	Yes		No	
	n	%	n	%
CS placement was one of the top five choices	30	75	10	25
Satisfied with the allocation process	25	63	15	37
Workplace was situated at a convenient place	25	63	15	37
Impacted on travel time to and from work	7	17	33	83

CS, Community service.

TABLE 4: Review of the community service year.

Review of the community service year	Mean ± SD
1. My tertiary education equipped me for the placement	1.58 ± 0.71
2. I was oriented by the staff on arrival	2.00 ± 0.81
3. I experienced supervision, mentorship and support whilst doing CS	1.88 ± 0.79
4. I received support from my management	2.00 ± 0.91
5. My seniors have been available and accessible when I needed assistance	1.93 ± 0.89
6. My attitude towards CS has become more negative because of my experience	2.93 ± 1.02
7. I feel that I have contributed towards the health of the community that I served	1.75 ± 0.71
8. I had the necessary supplies and equipment available to do my job	2.56 ± 0.97
9. I received my salary and allowance on time	1.79 ± 0.98
10. My workplace environment increased the risk to my personal safety	2.73 ± 1.04
11. I intend to stay on working at the same workplace	2.94 ± 1.07
12. I would recommend my workplace to future EHPs	2.54 ± 0.96

CS, Community service; EHPs, environmental health practitioners.

TABLE 5: Factors that contributed to professional development.

Factors that contributed to professional development	Mean ± SD
1. Level of workplace	2.03 ± 0.84
2. Working overtime	2.82 ± 0.92
3. Mentorship and support	1.90 ± 0.79
4. Support from management	1.90 ± 0.81
5. Engagement with senior EHPs	1.90 ± 0.85
6. Engagement with peers	1.97 ± 0.90

EHPs, environmental health practitioners.

Future career plans

When asked about their future career plans after the completion of the community service year, 46% of respondents preferred working in the private sector, whereas 33% would choose to go overseas if given the opportunity. A further 13% choose the public sector with 5% of these hoping to specialise and 3% wanting to work in rural development. Three per cent chose to work in non-governmental organisations, whereas 5% were undecided. The majority of participants (85%) decided on their future career pathing during the CS year.

Some suggestions to improve the environmental health community service programme

Nationally

Respondents requested improved communication between EH graduates and the Director General or community service facilitator and felt that community service placement should rather be co-ordinated at a national level. In order to ensure that graduates were placed timeously and appropriately, it was suggested that other approved facilities be sought to offer this service, for example, clinics, hospitals and relevant industries.

Placement

The system of placement must be changed where employment should be based on qualifications and nepotism should be eradicated. It was preferred that community service EHPs be placed in the districts closest to their homes.

Workplace

These suggestions were divided into three categories. The first was management and job functions. Support should be provided from management in the form of, for example, assigning supervisors to assist with mentoring community service EHPs and that the subordinate should be treated with dignity. Administrative duties should not be the main job function, but rather community service EHPs would prefer being in the field assessing health-related issues. Secondly, logistically, proper equipment must be made available for community service EHPs to perform their tasks and duties and also allow those who have drivers' licences to drive government vehicles. Suitable accommodation should be provided for EHPs living away from their homes. Thirdly, development programmes through workshops and seminars, should be offered.

Discussion
Outline of the results
Community service placements

Community service placements for the sample group occurred 1–2 years after graduation. This timing was vital, as a large percentage (58%) had taken financial loans to pay for their studies. Timeous placement would have assisted in timeous loan payments and not created an added financial burden to the graduate and their families. The placement of married EHPs (10%) outside KwaZulu-Natal, however, could have had negative financial, social and emotional impacts on the marital and family structures as the incumbents may have been only able to visit their homes on an irregular basis. Therefore, factors that could have influenced choice of placement for community service EHPs were most probably similar to that of South African occupational therapists where family contact and proximity to home were vital (Lebogang, Erasmus, Di Rago, Hooper & O'Reilly, 2014). Nemutandani, Maluleke and Rudolph (2006) noted in their study, however, that there was difficulty in placing community service doctors at hospitals of their choice as many preferred working and living in big cities which had good services and infrastructure, which then left the rural areas and former homelands with a severe shortage of health professionals.

It is therefore significant that the majority of our respondents had their community service placement as one of their top five choices and were satisfied with the allocation process, that the workplace was situated at a convenient place and that travel time to and from work was not greatly impacted upon. This speaks of good planning and allocation facilitation by the relevant environmental health governmental bodies. Note must be taken, however, of the time period of our sample groups' placements as there could have arisen subsequent changes or challenges since then. These findings, however, are contrary to that of Mashigea, Oduntanb and Rampersad (2013) where community service optometrists experienced poor remuneration and had concerns about personal safety, transport and accommodation. These concerns were also

evidenced in Hatcher, Onah, Kornik, Peacocke and Reid's (2014) study where a high percentage of medical and dental community service officers reported accommodation as unsatisfactory (43%), their personal safety as lacking (66%) and remuneration as unfair (46%).

Review of the community service year

Our respondents agreed that their tertiary education did equip them for placement. This equipping occurs through a 100 days of work-integrated learning (WIL) programme over their 3-year diploma cycle. WIL is often conducted in collaboration with municipalities and other pertinent stakeholders. These in the field hands on training together with the theory taught in class would have greatly enhanced and contributed towards their readiness for entering the environmental health profession. Similarly, nurses perceived themselves as being well prepared for the year of community service as regards knowledge, skills and ability to administer nursing care (Govender, Brysiewicz & Bhengu, 2015). Conversely, Nkabinde, Ross, Reid and Nkwanyana (2013) in their study, assessing whether internship training adequately prepared South African medical graduates for community service, found that critical gaps in knowledge and skills in paediatrics, orthopaedics, anaesthetics and obstetrics existed. Additionally, 75% of their respondents expressed a need for additional training in the disciplines of ear, nose and throat, urology, ophthalmology and dermatology. Also, Roziers and Ramugondo (2014) suggested that for nurses, their curriculum should include structured training in conflict management, assertiveness and practical ethics. These suggestions are also important for the environmental health field and where relevant can only add value to improving the community service year.

It was notable that in our study even though most of the review of the community service year appeared to be positive, a majority of respondents did not intend to stay on working at the same place or recommending their respective workplaces to future EHPs. This now creates a disconnection because if most aspects of the community service were positive, then it should follow that community service EHPs would like to continue working and recommend their workplaces. The reasons for doing this were not explored in this study but some of the suggestions to improve the community service programme as put forward by the respondents may better speak to this. Further, the majority of participants decided on their future career pathing during their community service year, and nearly, 79% would prefer to be employed outside the public sector. Given the critical human resource need of EHPs to be employed in the public sector, this does not bode well for the future of the environmental health profession. These results may also be consistent with Hatcher's et al. (2014) findings which showed that a small majority (66%) would recommend their community service facility to others, but that only one-third (34%) intended to stay at the same facility in the coming year.

Factors that contributed to professional development

Mentorship, support and engagement with senior EHPs helped in the professional development of community service EHPs. These are critical contributory factors as community service is the first key entry point into the profession by new graduates. Support, affirmation, motivation, critical thinking, logistical support and technical expertise by other staff members can only contribute to the upliftment of this critical human resource in the workplace. This is evidenced in studies undertaken of community service in other health professions by Reid (2002), Pillay and Harvey (2006), Visser, Marais and du Plessis (2006), Khan, Knight and Esterhuizen (2009), Ross and Reid (2009) and Parker et al. (2011). Further, Mashigea et al.'s (2013) study noted that community service optometrists improved their technical and clinical skills and enhanced their confidence, personal and social skills. Hatcher et al.'s (2014) study showed that overall satisfaction with community service training and mentorship, with supervision, management and practical concerns during the community service year and that a majority of participants reported that they had developed professionally. The level of the workplace and working overtime, however, were two factors that community service EHPs felt did not contribute sufficiently to their professional development. This could be attributed to how they were treated in the workplace by management or professionals in authority. Similar feelings were expressed in studies by Reid (2001) and Hatcher et al. (2014). Other health professions had some additional factors that should be taken into consideration. In Govender et al.'s (2015) study, there was limited orientation and support and nurses experienced problems of acceptance by fellow professional nurses, whereas in Paterson, Green and Maunder's (2007) study, community service dieticians (CSDs) experienced a lack of supervision and support, lack of preparedness of the institutions receiving them, a lack of clarity of the part of the CSD and a lack of teamwork. In her article on the reflections of a community service, clinical psychologist, Swarts (2013) noted that clinical guidance was minimal because of insufficient supervisory capacity.

Practical implications

It is important that concerns of our respondents and their suggested solutions are noted, discussed and implemented as best seen fit by the relevant government bodies and their associated stakeholders. The community service programme in the health sector has noble objectives that can only be achieved by a feasible, transparent and timely implementation process. It is necessary for government to review each aspect of the programme from inception (when students complete their necessary forms) to completion (on conclusion of the community service year). This review process will help manage this vital human resource of community service personnel better, especially if government is amenable to critically evaluate the pros and the challenges and to take heed of the suggested solutions of community service personnel. This transparent process can only strengthen the community service

programme and enhance human resource management and retention in the often overloaded and under-resourced South African health sector. Note should also be taken of the implications associated with community service EHPs greater preference to not only work in the private sector, but that 33% of our sample group would choose to work overseas if the opportunity presents itself. This type of statistic was also noted by Reardon and George (2014) who found that doctors and nurses had a higher disposition to moving overseas, especially among those who had had a frustrating and challenging community service year. These frustrations were echoed by Miguel Desroches, a Wits-educated and former Tygerberg Hospital medical intern who complained to the Constitutional Court about provincially dysfunctional administrations and dismal working conditions under which he and his peers struggled daily (Bateman, 2014).

Limitations and recommendations

Limitations

Environmental health graduates from other tertiary institutions were excluded because of logistical issues.

Strengths

This appears to be one of the first studies of this nature conducted among community service EHPs. It allowed for input from the allocation process through to the conclusion of community service and beyond, especially as regards future career pathing.

Future research

Future research could delve more deeply into reasons behind some of the quantitative aspects covered in this study. This could be carried out using qualitative or mixed methods to gain a greater understanding of some of the frustrations and challenges experienced in the community service year by graduates. It would also enhance best practice to obtain the views of the employer in this regard. Feasible interventions could be piloted by the government and relevant stakeholders and reviewed thereafter to see if these can be implemented countrywide in environmental health divisions. There also should be an audit of the management and logistical resources available in the approved health facilities so that note can be taken of the challenges faced by the employer when endeavouring to empower community service personnel.

Conclusion

This study has shown that community service EHPs have gained much from their respective placements. As in any system, however, there is still room for improvement. The onus also falls on community service personnel to make their voices known using the HPCSA and any available environmental health fora to develop feasible strategies pertaining to communication, implementation, human resources, logistics, management and leadership as utilised in the community service year.

Authors' contributions

A.K. was the project leader and responsible for project design and data collection. E.J.K. made conceptual contributions and undertook the statistical analyses. A.K. and E.J.K. wrote the manuscript.

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Human resource practices and affective organisational commitment: A sectoral comparative study

Authors:
Renier Steyn[1]
Magda L. Bezuidenhout[2]
Anton Grobler[1]

Affiliations:
[1]Graduate School of Business Leadership, University of South Africa, South Africa

[2]Department of Human Resource Management, University of South Africa, South Africa

Corresponding author:
Renier Steyn,
steynr@unisa.ac.za

Orientation: Organisational commitment (OC) is often depicted as a desirable employee attitude and relates to organisational performance. Little research has been carried out on the (Human Resource) HR practices–OC relationship within the South African context, and specifically with regard to this relationship across various sectors.

Research purpose: The purpose of this contribution is to specify the HR practices–OC relationship, within South Africa, and specifically across various sectors.

Motivation for the study: It addresses the important matter of OC, a necessary requirement for sustaining organisations, through effective delivery of HR practices.

Research design, approach and method: This study is based on a cross-sectional survey design, collecting primary data on HR practices and OC from South African employees in public and private sector organisations, as well as state-owned entities.

Main findings: Minimal practically significant mean scored differences were detected among HR practices delivered per sector. Furthermore, a positive link between effective HR practices and OC was found within each of the three sectors, but this relationship was sector-specific.

Practical implications: The findings of this study offer a new, contextualised perspective on the HR practices–OC relationship. The data gathered could assist practitioners in reshaping HR policies – and particularly practices – to suit their specific sector.

Contribution and value add: The findings of this study are expected to offer valuable insight into the deferential management along sector lines. They also reiterate the importance of localised research and caution practitioners not to transfer research findings to local settings without a thorough investigation of local research.

Introduction

Human resource (HR) practices denote the organisational activities aimed at managing the pool of HRs and ensuring that these resources are directed towards the achievement of organisational goals (Chew, 2004; Juhdi, Pa'wan, Hansaram & Othman, 2011; Rees & Smith, 2014), including creating a competitive advantage (Şendoğdu, Kocabacak & Güven, 2013; Zeeshan & Sabir, 2014). HR practices traditionally play an important role in influencing employee attitudes and behaviour (Nivethitha, Dyaram & Kamalanabhan, 2014). Coetzee, Mitonga-Monga and Swart (2014) emphasise this dual function of HR practices and state that HR practices represent the management processes and systems that are generally aimed at improving an organisation's performance and efficiency, *as well as* their employees' attitudes and behaviours. Momemi, Marjani and Saadat (2012) suggest that, particularly in the 21st century, HR practitioners recognise the importance of HR practices and their impact on employee performance, job satisfaction, commitment and retention. Bal, Bozkurt and Ertemsir (2014) specifically state that organisational commitment (OC) as an employee attitude is affected by the delivery of HR practices. Despite the empirical link between HR practices and OC being widely accepted by theorists, the specifics of how they are connected are still weakly grounded, according to Blakenstein (2014).

In this study, the focus will be on the HR practices–OC link. Although Bal et al. (2014) state that well-designed HR practices will increase the commitment of employees and help them to achieve the goals of the organisation, and although Swart (2009) posits that it can be assumed that employees who perceive that their organisation invests in sound HR practices that address their needs will be psychologically and emotionally committed to the organisation, most findings are based mainly on single-firm or organisational studies (Zaitouni, Sawalha & El, 2011) and have been conducted in the Western world (Hemdi, 2009; Meyer & Allen, 1997; Nasurdin, Hemdi & Guat, 2008).

This article brings to the fore an additional element of the HR practices–OC link discussion, namely the context of the organisation. While an HR delivery model describes how those services are provided (Armstrong, 2012), each HR department is subject to different forces, requiring unique approaches to HR service delivery (Swift, 2012). Kumar and Mishra (2011), for example, found that public and private sector organisations differ significantly with regard to HR practices. A major task is thus to identifying appropriate strategies for different contexts (Aycan, Al-Hamadi, Davis & Budhwar, 2007). The need exists to test the assumptions and underpinnings of the unitarist approach ('HR best practise' approach), which, according to Marchington and Grugulis (2000), has resulted in the empirically untested assertions that HR practices have a universal effect, irrespective of organisational or industrial context.

Research objectives

Human resource practitioners may be tempted to think that all HR practices are similarly delivered, similarly valued and similarly effective in all organisational settings, implying sector and industry equivalence. In this research, this hypothesis is tested, focusing on (1) assessing whether there are differences in the mean scores on effective or satisfactory HR delivery in three sectors, and (2) determining whether the relationship between HR practices and OC is similar in each of the three sectors. The last-mentioned refers to the possible effectiveness of HR practices in soliciting desired attitudes, in this case OC.

Literature review

Human resource services are not delivered in a contextual vacuum. Delery and Doty (1996), as well as Hemdi (2009), conceptualised HR practices as a set of internally consistent policies and services, designed and implemented to ensure that a company's human capital contributes to the achievement of its business objectives. These services are thus not fixed and differ from one organisation to another (Tiwari & Saxena, 2012). The universalistic perspective, based on the pioneering work of Pfeffer (1994, 1995, 1998), suggesting that organisational performance depends on common HR practices, regardless of the industry or strategy pursued, seems outdated. Rather, the contingency perspective on HR practices, emphasising the external context in which they are applied (Guest, 1997), and where HR practices are informed by strategy and organisational goals (Aryee & Budhwar, 2008; Jackson, Schuler & Rivero, 1989; Porter, 1985), seems appropriate. Given the focus on different economic sectors, the configurational perspective on HR practices may also be more appropriate than the universalistic perspective. The configurational perspective on HR practices mentioned above reflects the notion that distinctive bundles or patterns of HR practices will result in superior organisational performance (Delery & Doty, 1996; Guest, 1997). In this regard Guest (1997, p. 271) refers to 'patterns of HR practices that are horizontally integrated'.

The manner in which HR practices are presented may also influence the outcomes associated therewith. Rees and Smith (2014) differentiate between HR practices which are transactional and transformational. Transactional activities focus on supporting administrative needs within organisations, for example record-keeping and day-to-day maintenance, including recruitment, induction, performance management, development system, career development, the separation system and communicating organisational values to the employees (Pareek, 2007). Transformational HR practices, on the other hand, focus on supporting the more macro- or organisational-wide needs. These activities act as change agents for line managers and include HR practices which meet the company's strategic needs (Wright, McMahan, Gerhart & Snell, 1997).

When considering the goals of public and private sector organisations, it may be argued that the HR practices could differ based on the economic sector. Harel and Tzafrir (2001), for example, found that public sector management emphasised those HR domains that deal with employee selection and grievance procedures because of the sector's high level of unionisation. They also found that private sector management, on the other hand, emphasised employee growth and pay for performance. Also focusing on the types of services delivered, Kumar and Mishra (2011) found that public sector and private sector organisations differ significantly regarding certain HR dimensions, such as strategic HR; HR planning, training and development; safety and industrial relations. However, these authors found no difference regarding recruitment between the two sectors.

The research of Harel and Tzafrir (2001), as well as that of Kumar and Mishra (2011), thus reflects elements of the contingency perspective and configurational perspective of HR, as well as sector-based differences in transactional and transformational approaches to HR service delivery. Veloso, Tzafrir and Enosh (2015), affirming these differences, report that, in public organisations more than in private organisations, the nature of HR is perceived as mainly operational and administrative, and as ignoring the diversity of HR practices and the strategic role it can play in the organisation. Vanhala and Stavrou (2013) report that HR is more advanced in private companies than in public sector companies. The aforementioned lack of advancement may be a function of the sector, as Brown (2004) reports that public sector HR is bureaucratic and resistant to change.

Organisational commitment emerged in the 1970s and 1980s (see Mowday, Porter & Steers, 1982) as a key factor of the relationship between the individual and the organisations (Lamba & Choudhary, 2013), and has been conceptualised in many different ways (Ghanzanfar, Chuanmin, Siddique & Bashir, 2012). Early on, Mowday et al. (1982) suggest that individuals who score high on OC tend to have: (1) a strong belief in the organisation's goals and values, (2) a willingness to devote considerable effort in support of the organisation and (3) a keen desire to maintain membership in the organisation. Meyer and Allen (1997) define OC as the feeling of dedication to one's employer, willingness to work hard for

that employer and the intent to remain with that organisation. Meyer and Allen (1991) suggest a three-component model of OC, namely affective, normative and continuance commitment. The focus of this study is on affective organisational commitment (AOC), as Lamba and Choudhary (2013) argue that AOC is more important to organisational performance than continuance or normative commitment. AOC refers to employees' commitment through emotional attachment to the organisation and a belief in the organisation's values. Committed employees identify with the goals of the organisation and want to be part thereof (Ezirim, Nwibere & Emecheta, 2012). Employees therefore commit to the organisation because they 'want to' (Lamba & Choudhary, 2013). AOC is thus the individual employee's psychological attachment to the organisation (Lamba & Choudhary, 2013).

Kuo (2013) describes OC as an efficient and extremely powerful mechanism for connecting employees and the organisation. Employees who are committed to their organisations could be more willing to participate in 'extra-role' activities, such as being innovative. This is likely to guarantee organisations' competitiveness in the market (Van Dyk & Coetzee, 2012). Other benefits include improved employee performance and reduced employee turnover (Bal et al., 2014; Yew, 2013). It is important to retain the correct employees, as to make the most of their potential (Ahmad & Schroeder, 2003). As such, organisations are becoming gradually more interested in the promotion of commitment among employees (Lew, 2011).

The need to keep the workforce committed, and to gain a competitive edge through attracting quality staff, has led to a surge in the research studies trying to look into HR practices and OC relationships (Ghanzanfar et al., 2012). Blakenstein (2014) even suggests that the underlying goal of HR practices is to increase employee commitment. Imran and Ahmed (2012), for example, demonstrated in their research that compensation, perceived organisational support, work–life polices, training and development, career opportunities, empowerment, organisational climate and communication have a direct and positive impact on OC. Further, Zaitouni et al. (2011) found that HR practices that include competence development, fair rewards and information sharing were positively and significantly related to OC. Several other scholars have also examined the relationship between HR practices and OC. A summary of some of these is presented in Table 1.

Kehoe and Wright (2013) and Marescaux, De Winne and Sels (2013) have also studied the link between HR practices and OC but have come up with differing results. At an organisational level, Shahnawaz and Juyal (2006) found that HR practices significantly differ across two organisations and that different HR practices significantly predicted OC in the two organisations. Lamba and Choudhary (2013) investigated the impact of HR practices on the OC of employees in two industries and report sector-specific results. Blakenstein

TABLE 1: Previous research between human resource practices and organisational commitment.

HR practices linked with OC	Authors
Career development and planning	Caldwell, Chatman and O'Reilly (1990); Palmer (2006); Wayne, Shore and Linden (1997)
Training and development	Coetzee, Mitonga-Monga and Swart (2014); Palmer (2006)
Recruitment and selection process	Caldwell et al. (1990); Palmer (2006)
Performance management	Ahmed, Mohammad and Islam (2013); Brown, Hyatt and Benson (2010); Dusterhoff, Cunningham and Macgregor (2014); Hemdi (2009); Kuvaas (2011); Mustapha and Daud (2012); Salleh, Amin, Muda and Halim (2013); Selvarajan and Cloninger (2012)
Remuneration	Coetzee et al. (2014); Caldwell et al. (1990); Kuvaas (2006); Şendoğdu et al. (2013)
HR policies	Coetzee et al. (2014)
HR practices in general	Allen and Meyer (1990); Bal et al. (2014); Bawa and Jantan (2005); Chughtai (2013); Jeet and Sayeeduzzafar (2014); Meyer and Allen (1991, 1997); Meyer and Smith (2000); Momemi et al. (2012); Şendoğdu et al. (2013); Steyn (2012); Van Dyk and Coetzee (2012); Van Straaten-Theron and Dodd (2011); Zaitouni (2013); Zeeshan and Sabir (2014)

HR, human resource; OC, organisational commitment.

(2014) reported pessimistically that the HR practices–OC link has been left undetermined.

Research design
Research approach

The research design was a cross-sectional survey design, focusing on collecting quantitative data. This design is well suited to studies focusing on the relationship between variables, but not adequate to determine causality (Bryman, 2012). Primary data were collected from South African employees in public and private sector organisations, as well as in in state-owned entities (SOEs). Access to organisations was facilitated by 52 master's degree students. The study was therefore carried out on an opportunity sample of organisations (Rosnow & Rosenthal, 2008), as it focused only on organisations accessible by students. Once students had gained permission to conduct the study, simple random sampling was performed in each organisation ($N = 60$). Those selected for participation were informed about the scope of the study, as well as all ethical matters in this regard. Only those who volunteered to participate in the study did so, and only after signing an informed consent form. Hereafter, data collection followed. Several instruments, including one on HR practices and one on OC, were administered. Once the data had been collected, it was coded and the statistical analysis performed.

Data collection methods

Two instruments were used for collecting data in this study, namely the Human Resource Practices Scale (HRPS) developed by Nyawose (2009) and the Organisational Commitment Scale (OCS) (Allen & Meyer, 1990).

Human Resource Practices Scale

The original HRPS (Nyawose, 2009) consisted of 27 items, assessing nine HR practices, with three questions per practice. Nyawose (2009) reports internal consistencies, varying from

0.74 to 0.93 for these scales. Steyn (2012), using a shorter version of the scale, reports internal consistencies, varying between 0.74 and 0.88. With regard to validity, Steyn (2012) found that HR practices correlated in an expected manner with aspects such as job satisfaction (positively) and intention to quit (negatively). Only seven HR practices were assessed in this study, namely training and development (T&D), compensation and rewards (Rem), performance management (PM), supervisor support (SS), staffing (Sta), diversity management (Div) and communication and information sharing (Com).

The following is a typical item, taken from the training and development scale, and reads as follows: 'My company is committed to the training and development needs of its employees'. Respondents were requested to assess the organisation in which they were employed on a five-point scale, ranging from one (1 – disagree strongly) to five (5 – agree strongly). For each individual HR practice, the minimum score would be three (3) and the maximum 15. A high score would suggest that the respondent was satisfied with that particular HR practice, while a low score would indicate the opposite. A total score for HR practices, adding the scores of the seven subscales, were also calculated. The range for this score was 21–105. This score was interpreted as indicative of satisfaction with the HR function as a whole.

Organisational Commitment Scale

The OCS of Allen and Meyer (1990) can generally be used to assess affective, continuance and normative commitment. The scale consists of 24 questions, with 8 questions each on affective, continuance and normative commitment. Even though different conceptualisations of OC have been used in the literature, perhaps the most important with regard to HR practices is the concept of AOC (Lamba & Choudhary, 2013; Wright & Kehoe, 2007). Only the eight questions comprising the affective commitment part of the instrument were used. It is common practice to interpret the sections of the test separately (see, for example, Steyn, 2012). Allen and Meyer (1990) report an internal consistency coefficient of 0.86 for the affective commitment section, and Steyn (2012) reports a Cronbach's alpha coefficient for the eight items of 0.82. Allen and Meyer (1990) report evidence of construct validity, although there are some overlaps between affective and normative commitment. They also report that the 'relationship between commitment measures … and the antecedent variables … was, for the most part, consistent with prediction' (Allen & Meyer, 1990, p. 13). This points to convergent and discriminant validity. Steyn (2012) reported correlation coefficients of around 0.30 between OC and the different HR practices.

The first item of the affective commitment part of the scale reads as follows: 'I would be very happy to spend the rest of my career with this organisation'. Respondents were requested to indicate their views on this statement on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). The minimum score was 8 and the maximum 56. A high score on the scale would be indicative of high levels of commitment and low scores would be indicative of low commitment.

Statistical analysis

The statistical analysis was performed by using the Statistical Package for the Social Sciences (SPSS version 23). Firstly, statistics about the demographics of the respondents were calculated. Next, central statistics were calculated per sector, specifically the mean score and the standard deviation for each measure.

In order to determine the presence of differences in mean score across the sectors, one-way analysis of variance (ANOVA) was conducted. When the overall ANOVA showed significant differences between groups ($p < 0.001$), the Scheffé *post hoc* test was used to determine which pairs of groups differed significantly. The effect size of the differences in means between the groups was then determined. The guidelines of Pallant (2010) were used, where r values of 0.30, 0.50 and 0.80 represent small, medium and large effect sizes, as per calculated Cohen's d values.

Correlations between the independent variables (HR practices) and dependent variable (AOC) were calculated by means of Pearson's product moment correlations. Statistically significant correlations ($p < 0.001$) with values larger than 0.20 were interpreted as indicative of a practically significant correlation. To assess if the significant correlations differed from each other, z-observed values were calculated, following a Fisher r-to-z transformation. Should the z-observed value be greater than 1.96 or smaller than -1.96, the difference in the correlations would be deemed as statistically significant.

Linear regression analysis was used to determine the amount of variance explained by each of the HR practices in OC. In this case, statistically significant ($p < 0.001$) beta values were interpreted as being indicative of a unique and significant contribution to the dependent variable.

Findings
Demographics of the participants

The participants in this study were employees from different South African companies within the private and public sectors, as well as SOEs. The total number of participants was 3180 employees, representative of 52 companies. The private sector was the largest group, being 1944 (61% of the total), followed by the public sector with 719 (± 23%), followed by the SOEs with 480, representing 16% of the total sample.

In total, 57.1% reported that they were male, compared to 42.5% reporting that they were female (missing data = 0.4%). As far as race is concerned, 8.3% marked Asian, 58.4% black, 8.4% mixed race and 24.6% white (missing data = 0.3%). Their ages ranged between 20 and 72, with an average of 37.80 (standard deviation = 9.11). As far as tenure at their present company is concerned, this varied between 1 month and 42 years, with an average of 8.39 (standard deviation = 7.47).

Means per sector and mean differences

A preliminary analysis was performed to ensure that no violation of the assumptions of normality was made. Following satisfactory results, means were calculated. The descriptive statistics, Cronbach's alpha, as well as the results on the ANOVA, are reported in Table 2. From Table 2 (in column 5), it can be seen that the Cronbach alpha coefficient (α), representing the proportional variance error and the internal consistency of the instrument, was acceptable, given the 0.70 or higher mark set by Clark and Watson (1995) and Nunnally and Bernstein (1994). The lowest α value was 0.69. This permitted further calculations to be performed.

From Table 2 (in column 3), it can be observed that several variations in the mean scores occurred across sectors. The statistical significance of these variations is reported in column 10. Only three individual HR practices (T&D; Div; Comm) differed significantly on mean scores across sectors, and also the mean aggregate HR practices score (TOT) and the OC scores.

In order to determine between which groups the mean score differences occurred, the Scheffé *post hoc* test was performed subsequent to the ANOVA. The significant differences between the sectors are reported in Table 3.

From Table 3, we can observe that the only statistical difference between mean scores, which was also practically significant, occurred at the SOEs and public sector on T&D. Here, the mean difference was 1.09, with a Cohen *d* value of 0.37.

Relationship between human resource practices and organisational commitment, per sector

Pearson product moment correlations were used to determine the relationship between the independent variables (the

TABLE 3: Scheffé *post hoc* test: Between sectors mean score differences (practically significant differences are underlined).

Factor	Sector comparisons		
	Private/public	Private/SOEs	SOEs/public
T&D	0.64* (mean difference)	-0.45* (mean difference)	1.09* (mean difference)
	0.13 (s.e.)	0.15 (s.e.)	0.17 (s.e.)
	0.21 (effect size [d])	0.16 (effect size [d])	0.37 (effect size [*d*])
Rem	n/s	n/s	n/s
PM	n/s	n/s	n/s
SS	n/s	n/s	n/s
Sta	n/s	n/s	n/s
Div	0.43* (mean difference)	n/s	0.60* (mean difference)
	0.12 (s.e.)	-	0.16 (s.e.)
	0.16 (effect size [d])	-	0.22 (effect size [d])
Com	0.92* (mean difference)	0.50* (mean difference)	n/s
	0.13 (s.e.)	0.15 (s.e.)	-
	0.29 (effect size [d])	0.18 (effect size [d])	-
TOT	2.58* (mean difference)	n/s	2.42* (mean difference)
	0.66 (s.e.)	-	0.90 (s.e.)
	0.17 (effect size [d])	-	0.16 (effect size [d])
OC	n/s	-2.22* (mean difference)	1.97* (mean difference)
	-	0.50 (s.e.)	0.58 (s.e.)
	-	0.21 (effect size [d])	0.23 (effect size [d])

n/s, not significant; T&D, Training and development; Rem, Remuneration; PM, Performance management; SS, Supervisor support; Sta, Staffing; Div, Diversity management; Com, Communication; TOT, Aggregate of Human Resource Practices Scale (HRPS); OC, organisational commitment; SOE, state-owned entities.

*, $p \leq 0.001$.

TABLE 2: Means, reliability and test of mean differences (ANOVA).

Factor	Sector	N	Mean	s.d.	α	Sum of squares	df	Mean square	F	Sig.
T&D	Private	1981	11.43	2.97	0.78	374.05	2	187.03	21.47	$p \leq 0.001$
	SOEs	480	11.88	2.49	0.81					
	Public	719	10.79	3.18	0.86					
Rem	Private	1981	9.06	3.06	0.84	24.88	2	12.44	1.28	n/s
	SOEs	480	8.99	3.12	0.86					
	Public	719	8.84	3.26	0.84					
PM	Private	1981	10.85	2.92	0.79	101.68	2	50.84	5.81	n/s
	SOEs	480	10.70	2.92	0.78					
	Public	719	10.41	3.08	0.78					
SS	Private	1981	10.63	2.96	0.85	33.20	2	16.60	1.94	n/s
	SOEs	480	10.55	2.71	0.83					
	Public	719	10.38	2.99	0.85					
Sta	Private	1981	10.04	2.67	0.74	32.73	2	16.37	2.32	n/s
	SOEs	480	10.09	2.58	0.71					
	Public	719	10.29	2.69	0.70					
Div	Private	1981	10.24	2.60	0.74	129.70	2	64.85	9.23	$p \leq 0.001$
	SOEs	480	10.41	2.67	0.77					
	Public	719	9.81	2.78	0.77					
Com	Private	1981	10.35	2.81	0.83	473.79	2	236.90	28.20	$p \leq 0.001$
	SOEs	480	9.85	2.87	0.84					
	Public	719	9.43	3.15	0.87					
TOT	Private	1981	71.84	15.12	0.93	3619.28	2	1809.64	7.79	$p \leq 0.001$
	SOEs	480	71.70	14.00	0.92					
	Public	719	69.27	16.35	0.94					
OC	Private	1981	33.94	10.87	0.84	1930.95	2	965.48	9.89	$p \leq 0.001$
	SOEs	480	36.17	8.86	0.79					
	Public	719	34.19	8.45	0.69					

ANOVA, analysis of variance; n/s, not significant; T&D, Training and development; Rem, Remuneration; PM, Performance management; SS, Supervisor support; Sta, Staffing; Div, Diversity management; Com, Communication; TOT, Aggregate of Human Resource Practices Scale (HRPS); OC, organisational commitment; SOE, state-owned entities.

TABLE 4: Correlation between human resource practices and organisational commitment, as well as differences in the correlations.

HR practices	Private sector$_a$ (r_a)	SOEs$_b$ (r_b)	Public sector$_c$ (r_c)	Significance of differences between correlations (z-observed)		
				a,b	a,c	b,c
T&D	0.40*	0.30*	0.34*	2.24†	1.59	-0.75
Rem	0.37*	0.33*	0.39*	0.89	-0.54	-1.17
PM	0.39*	0.25*	0.33*	3.07†	1.58	-1.48
SS	0.41*	0.14	0.28*	5.78†	3.39†	-2.48†
Sta	0.37*	0.30*	0.31*	1.55	1.56	-0.19
Div	0.36*	0.21*	0.32*	3.21†	1.04	-2.0†
Com	0.41*	0.27*	0.37*	3.11†	1.08	-1.89
Total	0.51*	0.37*	0.44*	3.42†	2.07†	-1.42

T&D, Training and development; Rem, Remuneration; PM, Performance management; SS, Supervisor support; Sta, Staffing; Div, Diversity management; Com, Communication; TOT, Aggregate of Human Resource Practices Scale (HRPS); HR, human resource; OC, organisational commitment; SOE, state-owned entities.

†, Significant differences between correlations ($-1.96 \leq z_{obs} \geq 1.96$).

*, $p \leq 0.001$.

individual HR practices and the aggregate score on the HR practices scale) and OC (as the dependent variable). A preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. Following satisfactory results, correlations were calculated. These coefficients, presented in Table 4, were all positive and statistically significant, with the exception of the correlation between SS and OC for the SOEs ($r = 0.14$).

The correlation between TOT and OC had a large effect ($r = 51$) in the private sector. In all the other cases, the correlations were of a medium effect size. In general, the HR practices individually, as well as collectively (TOT), relate to OC. When considering the TOT scores for the three sectors, it can also be observed that the correlation for the aggregate score for HR practices is the highest for the private sector ($r = 0.51$), followed by the public sector ($r = 0.44$) and the SOEs ($r = 0.37$). These correlations are statistically, as well as practically, significant.

This brings to the fore the matter of significance of the differences between the ways HR practices correlate with OC. The extent to which the correlations differ across sectors was calculated as z-observed values. Focusing only on TOT's correlation with OC, the z-observed values of 3.42 (private sector–SOEs) and 2.07 (private sector–public sector) indicate that the correlation for the private sector is higher than that of the SOEs, and also that the correlation for the private sector is higher than that of the public sector, but that the correlations of the SOEs and the public sector did not differ significantly. On a subscale level, the way HR practices correlated with OC differed in five instances between the private sector and SOEs, once in the case of private sector and public sector, and twice when comparing SOEs and the public sector. In all five cases, private sector correlations were stronger than SOE correlations. In the one case where the correlations between the private sector and the public sector differed, the correlations were also stronger in the private sector. As far as the differences in correlations between SOEs and the public sector are concerned, the correlations were stronger in the public sector.

Linear regression was next to determine the extent to which all the HR practices combined (excluding the aggregate score on the HRPS) explained the variance in OC, as well as which

TABLE 5: Model summary of regression analysis – Variance explained in organisational commitment by human resource practices.

Sector	R	R^2	Adjusted R^2	s.e.	Sig.
Private sector	0.52	0.27	0.27	9.06	$p \leq 0.001$
SOE	0.42	0.18	0.16	8.11	$p \leq 0.001$
Public sector	0.45	0.20	0.19	7.60	$p \leq 0.001$
Combined	0.48	0.23	0.23	8.72	$p \leq 0.001$

Predictors: (constant), all HR practices.

Dependent variable: OC.

HR, human resource; OC, organisational commitment.

TABLE 6: Unique contributions of predictors to variance in organisational commitment (only standardised coefficients are presented).

HR practice	Private sector: standardised coefficient		SOE: standardised coefficient		Public sector: standardised coefficient	
	β	t	β	t	β	t
Constant	-	7.49	-	8.62	-	14.70
T&D	0.16*	6.41	0.21*	4.37	0.12	2.79
Rem	0.08	2.98	0.18*	3.39	0.20*	3.93
PM	0.06	2.28	0.02	0.033	-0.01	-0.02
SS	0.16*	6.53	-0.05	-1.00	0.04	0.83
Sta	0.07	2.56	0.15	2.66	0.03	0.64
Div	0.04	1.70	-0.05	-0.82	0.03	0.55
Com	0.11*	4.06	0.04	0.73	0.15	2.90

T&D, training and development; Rem, remuneration; PM, performance management; SS, supervisor support; Sta, staffing; Div, diversity management; Com, communication; SOE, state-owned entities.

*, $p \leq 0.001$.

individual HR practices contributed uniquely to the variance in OC. The results are reported in Tables 5 and 6.

Consistent with the results of the correlation coefficients reported in Table 4, the total variance explained by the seven HR practices (this time, each contributed with its unique weighting), is highest for the private sector (27% variance explained), compared to the public sector and SOEs with 19% and 16% of the variance explained respectively (all $p \leq 0.001$). To isolate the unique contribution of each of the HR practices to variance in OC, the β values of the abovementioned regression shown in Table 6 are relevant.

The uniqueness of the three sectors under investigation is apparent from these results. For the private sector, T&D and SS each have the highest contribution (β = 0.16; $p \leq 0.001$), followed by Com (β = 0.11; $p \leq 0.001$). For the SOEs, T&D (β = 0.21; $p \leq 0.001$) and Rem (β = 0.18; $p \leq 0.001$) contributed uniquely and significantly to OC. Lastly, in the public sector,

only Rem (β = 0.20; $p \leq 0.001$) contributed uniquely and significantly to the variance explained in OC.

Discussion

The research answers the call not to address and assess organisational issues in mainly a single-firm, organisation-wide or western world context. In total, 52 organisations, which could be divided into three sectors and which involved 3180 South African employees, were examined. This constitutes a relatively large study. However, it is not a flawless sample in all respects, as the selection of organisations was opportunity based. Note that sampling within organisations was random.

The first objective of the study was to assess whether there are differences in the mean scores on effective/satisfactory HR delivery in three sectors. Statistically significant differences in mean scores were found, 4/7 times for the private sector/public sector comparisons, and 2/7 times for both the private sector or SOEs and SOEs or public sector comparisons. Only one of the comparisons yielded a practically significant value. Thus, in only 1/21 comparisons on mean differences, this was practically significant. It was, consequently, not possible to replicate the findings of Lamba and Choudhary (2013), who found differences across sectors on effective or satisfactory HR delivery. The universalistic perspective (Pfeffer, 1994, 1995, 1998) of HR practices, suggesting that organisational performance depends on common HR practices, regardless of the industry or strategy pursued, seems to be supported by the data. Focusing on the mean differences (not) detected in this study, neither the contingency perspective nor the configurational perspective on HR practices could be supported. HR practitioners would therefore not be wrong to assume that all HR practices are similarly delivered and valued (by employees) across organisational settings.

The second objective of the study was to determine whether the relationship between HR practices and OC is similar in each of the three sectors. Do effective HR practices coincide with higher levels of OC? It was found that there is a link between effective HR practices and OC within each of the three sectors. Given the correlation between the HR practices, total score and OC, the link was the strongest for the private sector, followed by the public sector, and lastly the SOEs. These scores were practically significant. Considering the correlation of the per HR practice scores with OC scores, all of these reach statistical significance, with 20/21 at a practically significant level. There seems to be a strong correlation between perception on HR practices and OC.

However, the size of these correlations differs per sector. Private sector–SOEs differences in correlations accord 5/7 times and, in all cases, the correlations were higher for the private sector. Private sector–public sector differences occurred only 1/7 times, once again with the correlation being larger for the private sector. Lastly, 2/7 differences occurred when comparing the SOEs with the public sector, with the correlations for the public sector being higher.

The aforementioned suggests that the effects of HR practices on OC is the highest in the private sector, lower in the public sector, and the lowest in SOEs. This may be related to the manner in which HR practices are presented. Should HR services be delivered in a transformational manner in the private sector, as a change agent, and should HR services be delivered in a transactional manner in the public sector, only supporting the administrative needs within organisations (as Brown [2004] and Veloso et al. [2015] imply), some of these differences in correlations could be explained. HR practitioners should take note of these findings, which imply that HR practices have different levels of efficacy and that such efficacy is sector-specific and may be related to the way services are delivered.

Evidence from the regression analysis showed that the total variance explained by the seven HR practices is higher for the private sector (27%), compared to the public sector (19%) and SOEs (16%). This finding corresponds to that of Allen and Meyer (1990), Bal et al. (2014), Bawa and Jantan (2005), Chughtai (2013), Jeet and Sayeeduzzafar (2014), Meyer and Allen (1997), Meyer and Smith (2000), Momemi et al. (2012), Şendoğdu et al. (2013), Steyn (2012), Van Dyk and Coetzee (2012), Van Straaten and Dodd (2011) and Zeeshan and Sabir (2014). This may confirm, as Ahmad and Schroeder (2003) optimistically state, that OC acts as a sign that verifies whether the HR practices utilised in an organisation are able to promote psychological links between organisational and employee goals. This link may be present in transformational, rather than in transactional HR practices.

Limitations of the study and directions for future research

The findings of the present study are not without limitations, and these should be taken into consideration in future studies of this nature. As stated earlier, part of the sampling was performed in an opportunistic manner. Future researchers may benefit from the random sampling of organisations. Another limitation concerns the control variables of economic conditions, government policies and the political system, none of which were included. Nonetheless, they have been demonstrated as important predictors of HR practices (Aladwan, Bhanugopan & D'Netto, 2015). The aforementioned moderators will most likely affect public sector organisations as well as SOEs more than private sector organisations, thus limiting their ability to act in a transformational manner. Future research could include those as well as other moderating variables, which might have some effect on the relationship between HR practices and OC. Lastly, the research may suggest a causal relationship between HR practices and OC, which cannot be determined by applying this design. To investigate this link, quasi-experimental or longitudinal studies are suggested to future researchers.

Conclusion

Employees' satisfaction with the delivery of HR services across sectors may be similar, but the effects thereof differ. If applied in a seemingly transformational environment, the

effects are more pronounced than when delivered in a transactional environment.

Human resource practitioners and managers are therefore alerted to the fact that the effectiveness of HR practices may not be a function of the services delivered, but rather whether the services are intended to be transformational or transactional. HR practitioners and managers are thus urged to act in a transformational manner in order to optimise the effects of their actions. Further, by knowing the unique contribution that each of the HR practices makes towards explaining the variance in OC in the different sectors, HR practitioners within these organisations can make more informed decisions on what HR practices to offer in order to obtain certain outcomes.

The results of this study contribute to the body of knowledge on HR practices and OC literature by highlighting and providing insights into sector-specific effects among South African employees. The findings of this study offer new contextual perspectives on how HR practices affect OC and could assist in reshaping HR policies and, in particular, HR implementation in South African organisations.

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Competing interests

Authors' contributions

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
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The chief executive officer pay–performance relationship within South African state-owned entities

Authors:
Magda L. Bezuidenhout[1]
Mark H.R. Bussin[2]
Mariette Coetzee[1]

Affiliations:
[1]Department of Human Resource Management, University of South Africa, South Africa

[2]Department of Industrial Psychology and People Management, University of Johannesburg, South Africa

Corresponding author:
Magda Bezuidenhout,
bezuiml@unisa.ac.za

Orientation: Over the years, the increase in executive remuneration in state-owned entities (SOEs) has been the subject of intense discussions. The poor performance of some SOEs with highly remunerated executives begs the question of whether chief executive officers in South African SOEs deserve the high levels of remuneration they receive.

Research purpose: This study examined the relationship between chief executive remuneration and several measures of company performance across Schedule 2 SOEs within South Africa.

Motivation for the study: Notwithstanding the widely publicised poor performance of South African SOEs, their importance and relevance remains evident. Regrettably, the literature on what fundamentally drives their performance is lacking.

Research design, approach and method: This quantitative, longitudinal study, conducted over a 9-year period, collected secondary data from the annual reports of 18 Schedule 2 SOEs. The primary statistical technique used in the study was ordinary least square (OLS) multiple regression analysis on a pooled dataset. Chief executive remuneration consisted of fixed salary and total remuneration.

Main findings: A relationship was found between chief executive remuneration and company performance, although mainly an inverse relationship.

Practical and managerial implications: The improved understanding and knowledge of the relationship between chief executive remuneration and SOE performance may be used by the organisation and HR practitioners to direct and inform strategies for organisational effectiveness and business excellence.

Contribution or value-add: This research provides new knowledge to the limited research available on SOEs in South Africa. Further, it reveals an unexplored area of potential research, that is, the importance of irregular, fruitless and wasteful expenditure as a performance measure in SOEs.

Introduction

Key focus of the study

Questions such as 'Are South African executives' packages linked to performance?' come to mind when reading various newspapers, as well as academic and business articles. Concerns regarding excessive remuneration packages of chief executive officers (CEOs) have been added to an ongoing concern about the widening gap between the remuneration of executives and ordinary employees, as well as their large termination payments with a perceived lack of justification (Theunissen, 2010).

The focus of this study was Schedule 2 state-owned entities (SOEs) in South Africa. State-owned entities play a vital role in the economies of many countries, and the outrage over what many consider to be excessive CEO remuneration warrants research and plays an important role throughout South Africa (Corporate Governance of State-Owned Enterprises in Africa, 2009). Despite the highly publicised incompetence and poor performance of some SOEs, convincing evidence proposes that SOEs remain relevant (Boko & Yuan Jian, 2011; Mbo & Adjasi, 2017).

Crafford (2012) postulates that various stakeholders hold diverse views regarding how SOEs should benchmark their remuneration. State-owned entities have mostly ignored the remuneration guidelines of the Department of Public Enterprises (DPE), which insists that they need to be

benchmarked against the private sector (Crafford, 2012). In 2011, a new guideline was established, intended to serve as an improvement on the 2007 guideline. However, not all South African SOEs adopted and implemented the guidelines (Maloa & Bussin, 2016, p. 10).

Background to the study

The link between pay and performance has for some time now come under increased scrutiny, from the media and the public as well as from an academic perspective, that excessive remuneration is not aligned with SOE performance (21st Century Pay Solutions, 2012). Two cases in point follow, the first being the R9467 million total remuneration (TR) that Brian Molefe – Eskom's former acting CEO – received during the 2015/2016 financial year (Peyper, 2016). The TR packages that Eskom executives received during the 2015/2016 financial year amounted to R75.33m, compared to the R50.61m paid in the previous financial year (Peyper, 2016). Second, South African Airways' (SAA) former suspended CEO, Monwabisi Kalawe, received almost R2.7m after his resignation (Majangaza, 2015).

Over and above the millions of rands paid out to SOE CEOs, government has had to 'bail out' a number of SOEs over the years to keep them afloat. For example, during 2015, Eskom received a R23 billion bailout from government (Fripp, 2015). South African Airways has been surviving on state-guaranteed loans for the past few years. In addition, SAA posted a loss of R1.5bn in the 2015/2016 financial year (Gerber, 2016). During 2017, the South African government announced that SAA will receive an undisclosed sum from the National Revenue Fund in order to pay back loans of approximately R2.3bn to Standard Chartered Bank (Rothpletz, 2017). Rothpletz (2017) reports that SAA, in total, has borrowed R19bn from government.

State-owned entities, unlike private companies, receive the larger part of their revenue from the National Treasury (who collects from the taxpayer) and are supposed to serve the public. However, the remuneration of top executives in SOEs seems to be competing with that of private companies. Consequently, consumers pay high tariffs for the products and services of SOEs such as Eskom, while consumers should be benefiting from the funding paid to Eskom by South Africa's National Treasury (Ngwenya & Khumalo, 2012). In addition, the remuneration of CEOs of SOEs is of special importance to sustainable public service provision (Ngwenya & Khumalo, 2012; Papenfuss & Schmidt, 2016).

Research purpose

The focus of this study was on Schedule 2 SOEs in South Africa. Taking into consideration the important role that SOEs play in the economic prosperity of a country, the outrage over what many consider to be excessive CEO remuneration warrants research. The main problem, which informed the present study, is therefore the excessive remuneration packages that CEOs in SOEs receive, despite poor performance, and government 'bail out' of some of these SOEs.

Trends from the research literature

From past research on executive remuneration and company performance, there seems to be no real consensus on the relationship between executive remuneration and company performance. This is partially because of the diverse set of disciplines involved in these studies and the wide variety of methods used to investigate the questions (Florin, Hallock & Webber, 2010). In addition, for the private sector there are numerous studies in scientific journals on the level, design and determinants of executive directors' remuneration (Bussin & Nel, 2015; Jensen & Murphy, 2004; Jeppson, Smith & Stone, 2009; Ngwenya & Khumalo, 2012). However, with regard to studies on SOEs, the literature reports on very few empirical studies (Papenfuss & Schmidt, 2016).

Research objectives

The primary research objective was to determine whether there is a relationship between CEO remuneration and SOEs' performance over a 9-year period (2006–2014). Further, in view of the importance and the important role SOEs play, it becomes important to understand the measures that drive their performance. However, this remains a poorly researched area in organisational science (Mbo & Adjasi, 2017). The secondary research objectives were to determine the following:

- the relationship between CEOs' fixed pay (FP) and the SOEs' performance
- the relationship between CEOs' TR and the SOEs' performance.

Potential value-add of the study

This study contributes to the knowledge on the relationship between CEO remuneration and the performance of Schedule 2 SOEs in South Africa. In addition, there is insufficient understanding of what combination of variables positively influences SOE performance (Mbo & Adjasi, 2017). This research therefore sought to contribute to an enhanced understanding in this respect. This research will be of particular interest to investors and other stakeholders, such as unions and regulators, who expect CEOs' remuneration to be aligned with the SOEs' performance. A contemporary statistical package, named EViews, was used in analysing the data. EViews is specifically designed to analyse longitudinal panel data, unlike the traditional SPSS, which is not specifically designed for this set of data.

A more detailed review of the literature follows in the next section. The research design section outlines the longitudinal, quantitative, archival research method selected and describes the statistical analysis employed. The results of the study are then presented and discussed. The article concludes with a brief discussion of the research limitations and practical implications for remuneration practitioners.

Literature review

Chief executive officer remuneration constructs

Executive remuneration refers to the FP, short-term incentives and long-term incentives (LTIs), and related benefits awarded to those who occupy the most senior decision-making positions in private and public-sector enterprises (Bussin, 2011). The design of remuneration schemes is a key factor that affects the behaviour and awareness for acting in accordance with the overriding aims of the public authority. Moreover, pay seems key in attracting, recruiting and retaining executives in the public management environment. This is especially true where executives need to be recruited from the private sector (Jerry, Pan & Tian, 2011; Ngwenya & Khumalo, 2012; Papenfuss & Schmidt, 2016). Walker (2010) concurs with this notion and postulates that companies can attract the best executives by providing a competitive remuneration package.

For the purpose of this article, the focus is on FP and TR. These can be defined as follows:

- FP/salary: it is the guaranteed base pay that executives receive. This is normally a risk-free monthly payment (Ellig, 2007).
- TR: it includes FP plus short-term incentives (21st Century Pay Solutions, 2010). This component is also known as the *total cost of employment*.

Attractive CEO remuneration packages are created to ensure that the company is able to attract and retain the best possible CEOs (Bussin & Modau, 2015). In their study, Maloa and Bussin (2016) found that attractive remuneration packages are determined to a large extent by the size of the organisation, type of industry and job function.

Organisational performance measures

Researchers generally use financial performance as a measure of company performance (Demirer & Yuan, 2013). Numerous studies have used accounting-based measures, such as net profit (NP), return on equity (ROE) and return on assets (ROA), together with market-based measures, such as stock price and total shareholder return, as measures of company performance (Nourayi & Mintz, 2008). Papenfuss and Schmidt (2016) posit that 9 out of 11 studies on SOEs used financial performance ratios (measures by accounting and/or stock return) to examine the pay–performance relationship. Nearly all studies of SOEs used financial figures to examine associations between company performance and the level of CEO remuneration, for example, Otieno (2011), Minhat and Abdullah (2014), He, Conyon and Shaw (2013), Ngwenya and Khumalo (2012) and Mbo and Adjasi (2014). However, despite the numerous studies, there seems to be limited consensus on the optimal measure of company performance (Bussin & Modau, 2015).

The link between chief executive officer remuneration and company performance

Pay–performance sensitivity refers to the relationship between remuneration outcomes and measures of company performance, with not one conclusive measure but rather a broad set of variables (Bussin, 2015). Several research studies have shown the diverse nature and contrasting results of the study. With regard to the private sector, many South African empirical studies (i.e. Bradley, 2011; Bussin & Blair, 2015; Bussin & Modau, 2015; Scholtz & Smit, 2012; Theku, 2014) and international empirical studies (*inter alia*, Gigliotti, 2012; Murphy, 1985; Otieno, 2011; Tariq, 2010; Tian, 2013) have investigated the pay–performance relationship of CEO remuneration. The majority of these scientific studies did not provide evidence of a concrete pay–performance relationship with regard to the private sector.

As opposed to studies that focused on the private sector, there are very few empirical studies for SOEs regarding the relationship between CEO remuneration and company performance. In fact, Maloa and Bussin (2016) concluded that the literature in scientific journals on the subject of the investigation of executive remuneration in South African SOEs is limited. International studies, such as Minhat and Abdullah (2014), He et al. (2013), Jerry et al. (2011) as well as Kato and Long (2006), considered listed SOEs from the national government level of Asian countries. From a South African perspective, studies conducted on SOEs include Otieno (2011), Ngwenya and Khumalo (2012) and Maloa (2015). However, Maloa's study focused on the transformation as an element of executive remuneration in South African SOEs. Interestingly, Mbo and Adjasi (2017) argue that a developing view could be that SOEs do perform well depending on the variables used to measure performance.

A number of researchers concluded that there is a positive relationship between CEO remuneration and company performance (Dai, 2014; Demirer & Yuan, 2013; Jensen & Murphy, 1990; Murphy, 1985; Ozkan, 2011; Zigler, 2011). The bulk of these studies were conducted in the UK and the USA. Studies conducted on SOEs, and where a positive relationship was found between CEO remuneration and company performance, are those reported by Xin and Tan (2009) and Chen, Ezzamel and Cai (2011). Otieno (2011) and Ngwenya and Khumalo (2012) conducted studies on South African SOEs. Otieno (2011), aimed to determine the relationship between financial performance and executive remuneration in South African SOEs within the context of the agency theory. Otieno's (2011) findings revealed a positive relationship between executive remuneration and company performance. Ngwenya and Khumalo (2012) found a positive relationship between CEO remuneration (base salary) and the size of SOEs as measured by total revenue and number of employees.

In a Brazilian study conducted by Krauter and De Sousa (2013) during the period 2006–2007, no significant relationship was found between executive remuneration and corporate financial performance of sales growth and ROE. In South Africa, Bussin and Nel (2015) found a negative relationship between ROE and the guaranteed cost to company of the CEOs in the South African retail and consumer goods sector. Supporting this evidence, Kyalo (2015) found a weak negative relationship between executive remuneration and financial performance.

Minhat and Abdullah (2014) found no evidence of a pay-performance relationship in listed Chinese SOEs. Ngwenya and Khumalo (2012) found no positive relationship between CEO remuneration and SOE performance in South Africa (measured with ROA). In another South African study, Bradley (2013) investigated the relationship between CEO remuneration and company performance in the 40 largest public companies listed on the Johannesburg Stock Exchange for a 5-year period. Bradley (2013) found no relationship between CEO remuneration and measures of performance such as ROE, ROA, and earnings per share. Osei-Bonsu and Lutta (2016) examined the effectiveness of using CEO cash remuneration schemes in improving company performance in emerging markets. Osei-Bonsu and Lutta (2016) found no significant relationship between cash remuneration and ROA or ROE. Papenfuss and Schmidt (2016) examined the pay-performance relationship of executive directors from 176 SOEs in 11 sectors. They found no significant link between financial performance ratios (ROA and ROE) and the remuneration of executive directors.

It is evident that research conducted to establish the link between CEO remuneration and company performance metrics is inconclusive and that the results vary depending on the country, industry sector and the selected performance measures that were investigated (Bussin & Blair, 2015). Furthermore, the extent to which previous studies can aid the understanding of company performance in the context of SOEs remains a relatively unexplored area.

Research design

Research approach

The research approach decided upon was a longitudinal, empirical quantitative study aimed at assessing the relationship between CEO remuneration and measures of company performance. This research was further a desktop study, archival in nature, using secondary data gathered from annual reports.

Research method

Research participants

The research data utilised were obtained from Schedule 2 SOEs in South Africa for the period 2006–2014. The combined number of Schedule 2 SOEs were 21 as per the Department of National Treasury as on 30 April 2015 (see Table 1). The reason for using Schedule 2 SOEs for the purposes of this study was because these SOEs were (1) financially and operationally independent, (2) able to operate according to ordinary business principles and (3) self-funded (*Public Financial Management Act*, 1999). The number of Schedule 2 SOEs, the number of company performance measures used and the 9-year period (a large enough period) were seen as being sufficient for the research.

Because of the small target population, a sampling methodology was not employed and the entire population

TABLE 1: Schedule 2 public entities as at 30 April 2015.

Number	Public entity
1	Air Traffic and Navigation Services Company Limited
2	Airports Company of South Africa Limited
3	Alexkor Limited
4	Armaments Corporation of South Africa Limited
5	Broadband Infrastructure Company (Pty) Ltd
6	CEF (Pty) Ltd
7	DENEL (Pty) Ltd
8	Development Bank of Southern Africa
9	Eskom
10	Independent Development Trust
11	Industrial Development Corporation of South Africa Limited
12	Land and Agricultural Development Bank of South Africa
13	South African Airways (Pty) Ltd
14	South African Broadcasting Corporation Limited
15	South African Express (Pty) Ltd
16	South African Forestry Company Limited
17	South African Nuclear Energy Corporation Limited
18	South African Post Office Limited
19	Telkom SA Limited
20	Trans-Caledon Tunnel Authority
21	Transnet Limited

Source: National Treasury. (2015). *Public institutions listed in PFMA schedule 1, 2, 3A, 3B, 3C and 3D*, 30 April 2015, from http://www.treasury.gov.za/legislation/pfma/public%20entities/2015-04-30%20Public%20institutions%20Sch%201-3D.pdf

of 21 SOEs was used in the study. These 21 SOEs were subjected to the following criteria for inclusion in the study:

- The annual reports had to be available on either the McGregor BFA database or the SOE's website.
- SOEs had to have a 9-year financial history, which had to include the CEOs' remuneration.

After implementing the selection criteria, 18 of the 21 Schedule 2 SOEs were included in the study.

Measuring variables

The dependent variables for this study were the various components of CEO remuneration such as FP and TR. In studies with the aim of determining the relationship between CEO remuneration and the financial performance of an organisation, it would be ideal to include LTIs (Lippert & Porter, 1997; Murphy, 1985). Yet, as Bussin and Modau (2015) concluded, measuring LTIs has proven to be difficult and uncertain. Long-term incentives are based on future performance targets only by the time TR is awarded. It has therefore become standard practice to omit LTIs in analysing pay–performance relationships (Bussin & Modau, 2015). In addition, SOEs are not listed on the Johannesburg Stock Exchange and only a few SOEs provide LTI schemes.

The independent variables considered were the financial performances of the SOEs. This research approached the analyses of company performance from an organisational theory perspective, borrowing from research conducted by the DPE on variables known to drive SOE performance under its jurisdiction. The performance measures used in the study included the following:

- *Turnover* is the money generated by a company through its business activities during a specific period.
- *Operating profit/loss* (also termed *operating income*) is the profit/loss from a company's regular primary business operations. It is an indicator of the profitability of a company's basic business activities and displays the relationship between revenue earned and expenses incurred in producing this revenue (Williams, Haka, Bettner & Carcello, 2006).
- *NP/loss* (also termed *net income*) represents the overall increase (or decrease) in owners' equity from all profit-directed activities during a period. This measurement offers an indication of management's proficiency in controlling expenses and retaining a realistic share of its revenue as profit (Williams et al., 2006).
- *Liquidity ratio* (LR) is a company's ability to pay its short-term liabilities with its current assets (Williams et al., 2006). Literature suggests that company liquidity is a critical resource in influencing performance in the context of a generic enterprise (see Mbo & Adjasi, 2017).
- *Solvency ratio* is the ratio between the total liabilities of a business and its total assets. It is a measure of solvency and of a creditor's long-term risk.
- *Return on capital employed* (ROCE) is a financial ratio that measures a company's profitability and the effectiveness with which its capital is employed. Return on capital employed is particularly useful for comparing the performance of companies in capital-intensive sectors such as utilities and telecoms.
- *Return on equity* is the amount of net income returned as a percentage of shareholders equity (Bussin & Modau, 2015). Papenfuss and Schmidt (2016) posit that ROE is commonly used as a financial goal/criteria for SOEs as well as in day-to-day operations.
- *Audit opinion* (*AO*) is a certification of financial statements prepared by an independent auditor. The auditor's opinion will set out the scope of the audit and the auditor's opinion of the procedures and records used to generate the financial statements. An AO is a good indication of how responsibly the SOE applies accounting and financial controls. No previous studies included the AO as a company performance measure. Audit opinion was tested using dummy variables, because of its categorical nature, with *AO 3* (*Adverse opinion*) being the reference category.
- *Irregular, fruitless and wasteful expenditure* (IFWE) is an expenditure made in vain, which could have been avoided had reasonable care been exercised. In most part, such expenditure is incurred because of non-compliance with legislation (Auditor-General South Africa, 2012). For the purpose of this research, total IFWE was used. Table 2 shows how each of the independent variables were calculated and recorded.

TABLE 2: Measurement of independent variables.

Variable	Measures	Unit of measurement
Turnover (T)	Turnover = Revenue	South African rand; financial item stated in the annual report
Operating profit/loss (OP)	Operating profit = operating income = Gross profit = Profit before tax	South African rand; financial item stated in the annual report
Net profit/loss (NP)	Net Profit/loss = Profit/loss after tax	South African rand; financial item stated in the annual report
Liquidity (LR)	$\dfrac{Current\ assets}{Current\ liabilities}$	Ratio
Solvency (SR)	$\dfrac{Total\ assets}{Total\ liabilities}$	Ratio
Return on capital employed (ROCE)	$\dfrac{Operating\ profit\ (income)}{Capital\ employed}$	Ratio
Return on equity (ROE)	$\dfrac{Net\ profit\ after\ tax}{Total\ equity}$	Ratio
Audit opinion (AO)	The following classifications were used in this research: An *unqualified opinion* shows that the financial records have been maintained in accordance with generally accepted accounting principles (GAAP) (Henderson, 2014). A *qualified opinion* is released when a company's financial records have not been maintained in accordance with GAAP, but no misrepresentations have been identified (Henderson, 2014). An *adverse opinion* indicates that the company's financial records do not conform to GAAP standards. The financial records provided by the SOE therefore contain gross misrepresentations (Henderson, 2014). An *emphasis of matter* refers to a matter appropriately presented in the financial statements that, in the auditor's judgment, is of such importance that it is fundamental to users' understanding of the financial statement (International Standard on Auditing, 2016). *Disclaimer of opinion* is where an auditor is unable to complete an accurate audit report. This may because of, for example, the company having provided insufficient evidence in the form of documentation on which to base an AO (Auditor-General of South Africa, 2014).	The unit of measurements for AO was as follows: 0 = Unqualified audit opinion 1 = Qualified audit opinion 2 = Emphasis of matter 3 = Adverse/ going concern 4 = Disclaimer
Irregular, fruitless and wasteful expenditure (IFWE)	Classified into three categories (South African Qualifications Authority, 2013): *Irregular expenditure*, as defined by the Public Financial Management Act (PFMA), means expenditure, other than unauthorised expenditure, that is incurred in contravention of, or not in accordance with, any applicable legislation (not just the PFMA). *Unauthorised expenditure* is the overspending on an approved budget spending not in line with the original approved budget item, or expenditure without the appropriate approval. *Fruitless and wasteful expenditure*, as defined in the PFMA, is expenditure that was made in vain and could have been avoided had reasonable care been implemented. Such expenditure may be of an operational or a capital nature.	South African rand and actual figures were captured as reported in the annual reports

SOE, state-owned entity.

Research procedure

The relationship between the CEO remuneration and measures of company performance were observed over a period of 9 years (2006–2014.) The 9-year period was considered adequate to ensure limited influence of short-term irregularities, while being short enough to provide reliable estimates of the research concepts (Bussin & Modau, 2015). The researchers sourced data from annual financial statements in the annual reports of the SOEs under study. Using secondary data ensured that the data was readily available and would be of a higher quality than primary data because of the data being reported in a standardised manner, rather than for a particular objective (Otieno, 2011; Swatdikun, 2013).

The remuneration and financial data used were reflected as at 31 March of each year (the financial year-end of the SOEs). In calculating FP and TR, CEO turnover was taken into account because CEOs changed during some financial years. Chief executive officer remuneration values may therefore not have been in respect of a full financial year (01 April–31 March) or of their functions as CEO. Of the 162 (18 SOEs, 9 years) panel observations, there were 36 cases where CEO positions changed. To compensate for these changes, the researchers included the information of the CEO who had been in the position for the longest time during the financial year. In order to (1) not exclude these observations from the sample, and because the calculations involved were straightforward and (2) for remuneration data not to be misrepresented, the researchers annualised the remuneration to reflect a full year's remuneration. There were 36 cases where the researchers annualised CEO remuneration (FP and benefits). Baptista (2010) applied the same methodology.

In six cases the remuneration of the acting CEOs was used. In these cases the unadjusted CEO remuneration data were employed. There were also three cases where termination payments were included in the FP portion of the package. In order to not distort the remuneration data, the researchers used FP of the previous year and a percentage package increase calculated for that year. In each of these three cases, the researchers applied the expected salary increase provided in the relevant SOEs' annual reports. This method prevented a misrepresentation of the CEO remuneration data, as the remuneration values calculated were in line with the rest of the CEO remuneration data collected for the SOEs (previous and subsequent years).

Statistical analysis

Data were analysed using SPSS (Version 22, for the descriptive analysis) and EViews (Version 8) to determine the relationship between CEO remuneration and SOE performance. Polakow (2015) raised concerns regarding the use of standard statistical techniques in financial analysis that ignore autocorrelation and stationarity. By using EViews, which accommodates panel data and provides the necessary econometric analysis required for this type of data, this research addressed Polakow's (2015, p. 53) concern, which contributes to 'broad market inefficiency'.

The dataset consisted of a panel of 162 observations (18 SOEs × 9 years). Chief executive officer remuneration and company performance components were tested for normality, stationarity (using the augmented Dickey–Fuller test) and autocorrelation (using the Durbin–Watson [DW] test). The results of the assumption testing were taken into account in the analysis conducted by choosing the appropriate estimation method.

Further, the tolerance and variance inflation factor (VIF) information in the regression models was used to test for the presence of multicollinearity. Multicollinearity occurs when two explanatory variables are highly correlated ($r = 0.90$) (Westhoff, 2013). The presence of such high correlations indicates that variables do not hold any additional information needed in the analysis (Tabachnick & Fidell, 2013). As a rule of thumb, if the VIF of a variable is greater than 10, multicollinearity is present. No multicollinearity problems were identified in the present research.

Inferential and multivariate statistics were used to permit the researcher to draw conclusions pertaining to the data. For this research, multiple regression analysis was performed to determine the proportion of variance explained by the independent variables (company performance components) in predicting the dependent variables (CEO remuneration components). The pooled ordinary least square (OLS) regression model was used and assumed that the independent variables were strictly exogenous to the error terms of the model (Gujarati & Porter, 2009). Further, the multiple regression analyses entered all the independent variables into the equation concurrently. Various regression models were run until an optimum model, with the highest adjusted R square value and F-statistic value, was reached. The approach to determine the optimum regression model is an iterative process whereby non-statistical significant independent variables are deleted until the explanatory power does not show an increase and the associated F-statistics of the regression do not show a decrease. It is important to note that a regression model can include statistically significant predictors and non-statistically significant predictors, as the aim of a regression is to determine the optimal set of independent variables that optimise the percentage variance explained. Thus, even if some of the measures were not statistically significant, they still contributed to a higher percentage of variance explained, thereby justifying their inclusion.

Results
Descriptive statistics

The target population was South African Schedule 2 SOEs ($N = 21$). After applying the elimination process, a sample of 18 Schedule 2 SOEs was identified as usable for the purpose of the study ($n = 18$). Because there were various instances of significant differences in the descriptive results

TABLE 3: Chief executive officer fixed pay summary (R'000).

Year	Mean	Standard deviation	Median
2006	1994250.19	1052027.05	1679000.00
2007	2372378.39	1242189.05	2062141.50
2008	2509763.41	1325793.61	2044607.00
2009	2668468.03	1203410.04	2470000.00
2010	2769787.70	1034832.47	2550500.00
2011	3160985.56	1394699.82	2808500.00
2012	3586606.11	1243883.04	3319964.00
2013	3184005.83	1459638.89	3182000.00
2014	3523151.89	1487536.39	3063420.50

between the means and medians for the CEO remuneration components and company performance, the researchers reported on the medians. Medians are not affected by outliers compared to means, and generally when data sets have outliers, reporting the median as the central tendency of the data often gives a better 'typical' data value than the mean (Weiers, 2010).

Chief executive officer remuneration components

Table 3 presents a summary of the descriptive statistics for FP received by CEOs in the 18 SOEs between 2006 and 2014. It is clear that there was an average year-on-year increase of 8% in FP. Because FP is often determined according to industry market surveys (Murphy, 1999), in most cases FP was not expected to decline during periods of poor financial performance (Kuboya, 2014).

Figure 1 shows a graphical presentation of the descriptive statistics for CEO FP. While the researcher did not consider inflation, it is evident from the graph that the increase in the mean and median fluctuated throughout the period of analysis. From Figure 1 it is evident that CEO FP did not experience the runaway growth claimed in the media. There was a slight increase in the median of FP during 2007, with the highest median of FP being in 2012.

Table 4 contains a summary of the descriptive statistics for TR received by CEOs in the 18 SOEs between 2006 and 2014. Total remuneration experienced an average year-on-year increase of 9% and a total increase of 93% over the period.

Figure 2 shows a graphical presentation of the descriptive statistics for CEO TR. From Figure 2 it is clear that TR fluctuated during the period under study. The decrease in TR during the 2009/2010 financial year could have been the fallout from the economic recession, while the decline during the 2012/2013 financial year could be attributed to the great number of acting CEOs during that period across the 18 SOEs.

Company performance measures

Table 5 presents a summary of the medians (averages) of the descriptive statistics of the company performance components selected for this research study: turnover (T), operating profit (OP), NP, ROCE, ROE, LR, solvency ratio (SR), AO and IFWE.
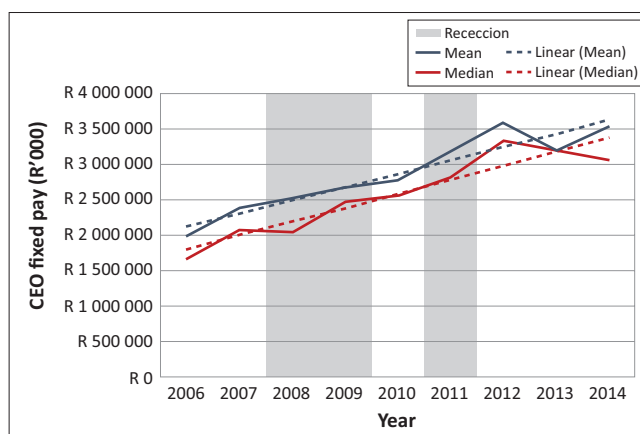
Number of observations in the panel data, $n = 162$.

FIGURE 1: Graphical presentation of the descriptive statistics for chief executive officer fixed pay (2006–2014).

TABLE 4: Chief executive officer total remuneration summary (R'000).

Year	Mean	Standard deviation	Median
2006	3332067.96	2265677.94	2325750.00
2007	3807600.78	2136055.98	3132787.50
2008	4237731.59	2744345.78	3970035.00
2009	4802590.06	2716499.95	4525037.50
2010	4531525.29	2300189.77	3959000.00
2011	4868698.06	2666919.72	4111500.00
2012	5743642.19	3174628.91	4641500.00
2013	4577509.56	2634924.46	4072000.00
2014	5241013.27	2695857.11	4490227.27
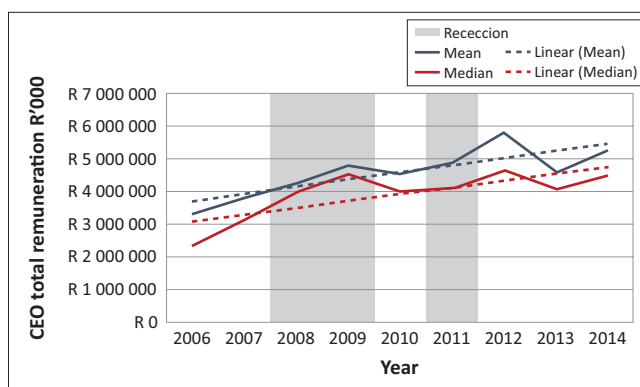
Number of observations in the panel data, $n = 162$.

FIGURE 2: Graphical presentation of the descriptive statistics for chief executive officer total remuneration (2006–2014).

Table 6 contains a summary of the standard deviations for the company performance components.

From the descriptive statistics, it is clear that most of the performance measures declined over the 9-year period. The decline in the median measures was as follows: T = 111%, OP = 56%, NP = 29%, ROCE = 74% and ROE = 52%. On the other hand, median LR rose by 56%, and SR increased by a mere 2% over the period.

The relationship between chief executive officer remuneration and company performance

The objective of this research was to determine the relationship between CEO remuneration (FP and TR) and

TABLE 5: Company performance measures medians.

Year	Turnover	OP	NP	LR	SR	ROCE	ROE	IFWE
2006	2452772500.00	610426500.00	434574500.00	1.36	1.70	0.13	0.12	0.00
2007	2935435500.00	1093511512.00	266969500.00	1.25	1.94	0.14	0.12	0.00
2008	3373951500.00	770996616.00	349167000.00	1.27	1.80	0.11	0.08	0.00
2009	3608791000.00	505362500.00	254127000.00	0.99	1.52	0.08	0.08	0.00
2010	3581736500.00	407669500.00	230156000.00	1.15	1.48	0.06	0.04	0.00
2011	4122956000.00	532792055.50	142390500.00	1.35	1.55	0.05	0.05	121871.50
2012	4707705000.00	360963391.00	172968000.00	1.46	1.49	0.05	0.06	870135.00
2013	4882121500.00	228674780.00	147827000.00	1.89	1.64	0.03	0.05	4615500.00
2014	5183220000.00	267699009.00	308056627.50	2.24	1.74	0.03	0.06	6532500.00

n = 18.

OP, operating profit/loss; NP, net profit/loss; LR, liquidity; SR, solvency; ROCE, return on capital employed; ROE, return on equity; IFWE, irregular, fruitless and wasteful expenditure.

TABLE 6: Company performance measures standard deviation.

Year	Turnovr	OP	NP	LR	SR	ROCE	ROE	IFWE
2006	14029089736.97	4077494496.67	2487634508.85	2.39	1.25	0.27	0.60	3768925.14
2007	15250858652.69	4464230191.10	2858114094.06	1.99	1.33	0.26	0.33	15535439.79
2008	16470407093.20	3995448365.57	2236625996.73	1.82	1.37	0.21	0.23	19827142.80
2009	15374995271.63	2817253267.84	3055558612.50	2.61	1.90	0.69	0.32	29295525.61
2010	17939019529.13	4432694813.84	8793504985.39	2.19	2.09	0.17	0.39	178657442.77
2011	22583327858.44	3782249093.03	2140105364.53	2.45	1.68	0.11	1.17	1994354065.92
2012	27896579286.56	5542880950.90	3258931720.40	2.15	1.36	0.14	0.51	168527770.81
2013	31093882717.85	4617394390.09	3313899759.05	1.41	1.33	0.16	0.37	564377137.34
2014	33731318826.90	4036611855.17	2399121949.77	1.75	1.68	1.04	0.22	965285484.85

n = 18.

OP, operating profit/loss; NP, net profit/loss; LR, liquidity; SR, solvency; ROCE, return on capital employed; ROE, return on equity; IFWE, irregular, fruitless and wasteful expenditure.

the financial performance of South African Schedule 2 SOEs. The results of each of the remuneration components will be discussed in subsequent paragraphs.

Relationship between fixed pay and company performance

The regression model included 144 balanced panel observations and 18 cross-sectional units over a period of 8 years, because of the inclusion of the AR (1) term. Five iterations were run to determine the optimum final regression model for FP, with the fifth model being regarded as the optimum model. Table 7 provides a summary of each individual regression model (with the t-statistics in parentheses).

As can be seen in Table 7, the DW test statistic was 2.5, indicating no serious serial correlation. Model 5 was regarded as the optimum model as the F-statistic increased to 62.54, in conjunction with an improvement of the adjusted R^2. The optimum model indicated that 63% (adjusted R^2 = 0.63) of the variation in FP was explained by company performance. Table 7 further indicates that audit opinion does not play a role in the determination of FP. It was also noted that the coefficient of NP was negative for all the models tested.

Relationship between total remuneration and company performance

It is important to note that an amount of R19m TR for one of the SOEs in the year 2008 was omitted from the regression analysis, as it was identified as an outlier that had a significant impact on the fitting of a representative regression model. The regression model included 142 unbalanced panel observations

and 18 cross-sectional units over a period of 9 years. Five iterations were run to determine the optimum final regression model for TR. The results of each individual regression model are summarised and presented in Table 8 (with the t-statistics in parentheses).

As can be seen from Table 8, the DW test statistic was 2.74, indicating no serious serial correlation. The last regression, Model 5, in Table 8, was regarded as the optimum model, as the F-test statistic increased to 43.41, indicating an optimal fit for the model. Further reduction of independent variables resulted in a decrease in the F-statistic and adjusted R^2 value. The optimum model also explained 64% (adjusted R^2 = 0.64) of the variance in TR. The findings from Model 5 indicate that there is a relationship between TR and each of the following components: OP, NP, LR, ROCE and IFWE in South African SOEs.

Discussion

The primary objective of this research study was to determine whether a relationship existed between CEO remuneration components and company performance within Schedule 2 South African SOEs between 2006 and 2014. Understanding this relationship is important to justify why CEOs receive high remuneration despite the poor performance of SOEs. The expectation was that there would be a negative (or no relationship) between CEO remuneration components and company performance measures.

Results indicate that the major determinants of FP among company performance measures were turnover, NP and IFWE. However, only the p-values of NP and turnover were

TABLE 7: Regression model: Fixed pay and company performance measures.

Dependent variable: Fixed pay	Models									
	1		2		3		4		5	
	Unstandardised beta coefficients	t-statistics	Unstandardised beta coefficients	t-statistics	Unstandardised beta coefficients	t-statistics	Unstandardised beta coefficients	t-statistics	Unstandardised beta coefficients	t-statistics
Constant	2774276	-	2750492	-	2736442	-	2765884	-	2877548	-
AR(1)	0.66	-	0.67	-	0.66	-	0.66	-	0.64	-
Turnover	**302000.00***	**-3.87**	**302000.00***	**-3.93**	**304000.00***	**-3.98**	**340000.00***	**-4.94**	**335000.00***	**-5.04**
OP	441000	-0.96	445000	-0.99	448000	-1	-	-	-	-
NP	**-734000.00***	**-2.46**	**-744000.00***	**-2.56**	**-745000.00***	**-2.57**	**-503000.00***	**-2.98**	**-491000.00***	**-2.89**
LR	65696.59	-1.01	64197.29	-1.1	63404.6	-1.1	58383.31	-1.01	-	-
SR	-8801.99	-0.08	-	-	-	-	-	-	-	-
ROCE	104220.5	-0.7	104960.1	-0.72	104575.7	-0.72	-	-	-	-
ROE	-18989.4	-0.19	-	-	-	-	-	-	-	-
IFWE	-987 000	-1.26	-997 000	-1.3	-0.000102	-1.34	-0.000111	-1.47	-0.000112	-1.47
Dum_Qualified Audit opinion	-20617.58	-0.06	-	-	-	-	-	-	-	-
Dum_Emphasis of matter	-28699.62	-0.14	-	-	-	-	-	-	-	-
Dum_Disclaimer	-356500.1	-0.45	-354703.1	-0.45	-	-	-	-	-	-
F-statistic**	**20.28**	-	**31.33**	-	**35.99**	-	**50.22**	-	**62.54**	-
DW stat	2.54	-	2.54	-	2.54	-	2.54	-	2.52	-
R²	0.65	-	0.65	-	0.65	-	0.65	-	0.64	-
Adjusted R²	**0.618**	-	**0.629**	-	**0.631**	-	**0.632**	-	**0.632**	-

Note: The data set in bold indicate significant values. The F-statistics and adjusted R^2 presented in bold are the important values considered in the analysis.

n = 18.

*, Significance at the 5% level; **, p-value = 0.00.

DW, Durbin–Watson; OP, operating profit/loss; NP, net profit/loss; LR, liquidity; SR, solvency; ROCE, return on capital employed; ROE, return on equity; IFWE, irregular, fruitless and wasteful expenditure.

TABLE 8: Regression: Total remuneration and company performance measures.

Dependent variable: Total remuneration	Models									
	1		2		3		4		5	
	Unstandardised beta coefficients	t-statistics	Unstandardised beta coefficients	t-statistics	Unstandardised beta coefficients	t-statistics	Unstandardised beta coefficients	t-statistics	Unstandardised beta coefficients	t-statistics
Constant	4734563	-6	4545667	-6.86	4536532	-6.93	4436095	-6.88	4647930	-7.55
AR(1)	0.74	-12.70	0.73	-12.60	0.73	-12.64	0.74	-13.00	0.75	-14.16
Turnover	113000	-0.67	121000	-0.74	122000	-1.64	121000	-1.65	-	-
OP	**0.000270***	**-3.11**	**0.000267***	**-3.1**	**0.000267***	**-3.12**	**0.000273***	**-3.22**	**0.000293***	**-3.67**
NP	**-0.000184***	**-3.38**	**-0.000181***	**-3.35**	**-0.000181***	**-3.36**	**-0.000184***	**-3.45**	**-0.000191***	**-3.68**
LR	167115.5	-1.37	145303.3	-1.30	144970.8	-1.30	140075.5	-1.27	137633.1	-1.25
SR	-93446.08	-0.44	-	-	-	-	-	-	-	-
ROCE	-305089.1	-1.11	-294257.7	-1.08	-294233.8	-1.08	-285637.6	-1.06	-280666.9	-1.05
ROE	82217.63	-0.46	-	-	-	-	-	-	-	-
IFWE	-0.000163	-1.14	-0.000169	-1.2	-0.00017	-1.21	-0.00017	-1.22	-0.000156	-1.14
Dum_Qualified Audit opinion	-457843.3	-0.68	-464156.3	-0.69	-463094.1	-0.69	-	-	-	-
Dum_Emphasis of matter	-302816	-0.77	-300267.4	-0.77	-299320.4	-0.77	-	-	-	-
Dum_Disclaimer	-212477	-0.14	-183179.9	-0.12	-	-	-	-	-	-
F-statistic**	**21.14**	-	**25.64**	-	**28.7**	-	**37.15**	-	**43.41**	-
DW stat	2.71	-	2.7	-	2.7	-	2.72	-	2.74	-
R²	0.66	-	0.66	-	0.66	-	0.66	-	0.65	-
Adjusted R²	**0.631**	-	**0.636**	-	**0.638**	-	**0.642**	-	**0.642**	-

Note: The data set in bold indicate significant values. The F-statistics and adjusted R^2 presented in bold are the important values considered in the analysis.

*, Significance at the 5% level; **, p-value = 0.00.

DW, Durbin–Watson; OP, operating profit/loss; NP, net profit/loss; LR, liquidity; SR, solvency; ROCE, return on capital employed; ROE, return on equity; IFWE, irregular, fruitless and wasteful expenditure.

statistically significant ($p < 0.05$), suggesting a stronger relationship between FP and these two company performance components. This finding is supported by that of Modau (2013) and Ndofirepi (2015). However, findings from this research are contrary to that of Osei-Bonsu and Lutta (2016), who found that CEOs' salaries are not linked to company performance.

Based on the findings of a statistically strong positive relation between FP and turnover, it could be argued that a CEO who generates a higher income for the SOE is considered to perform well, for which he or she is rewarded. This could explain the connection between CEO remuneration and company performance, as posited by Andersson and Andersson (2006). The negative relationship

between FP, and NP and IFWE, could suggest that CEOs were paid for poor performance. This could have created a misalignment between what CEOs are being paid and the performance of the SOEs.

The negative relationship of NP and IFWE with FP was expected. A possible explanation for the negative relationship could be that the SOEs' NPs decreased during the study period, and labour costs (such as salaries) increased. The results suggest that for every R1m increase in NP, FP decreased by R491 000.00. Turnover was positively significantly linked to FP, suggesting that for every R1m increase in turnover, FP increased, on average, by R335 000.00. The results further suggest that higher IFWE will result in lower FP, and vice versa.

From the results it is clear that TR had a statistically significant positive relationship with OP, a statistically significant negative relationship with NP, a positive, non-statistically significant relationship with LR and ROCE, and a negative, non-statistically significant relationship with IFWE. The statistically significant relationship with OP and NP suggests a stronger relationship with TR than the other variables. Findings of a relationship between TR and liquidity are supported by findings by Mbo and Adjasi (2017), who found that SOE performance is positively correlated to liquidity. Tan and Peng (2003), as well as Miller and Leisblein (1996), posited that the positive impact of company liquidity on SOE performance can be attributed to the SOEs' ability to negotiate early payment discounts and take advantage of resourceful procurement as well as negotiating better supplier terms.

The negative relationship between TR and IFWE could suggest that boards and stakeholders reduced TR to penalise SOEs for loss of crucial political connections as posited by Fan, Wong and Zhang (2007). A company's political connections may have both direct and indirect effects on changes in executive remuneration (Conyon & He, 2016, p. 689).

The findings of this research support the findings of previous studies on executive remuneration that found a relationship between TR and company performance (although those authors conducted these studies in the private sector or in different sectors to that of the present study). For example, Jeppson et al. (2009) found that company revenue was the only statistically significant variable that predicted TR (with an R^2 of only 0.10). In his study, Modau (2013) found a positive relationship between TR and ROE. Scholtz and Smit (2012) found a strong relationship between TR and turnover. The findings of the present research – that there is a positive relationship with OP – support the findings of Sigler (2011), Nel (2012), Van Blerck (2012) and Modau (2013).

The results regarding the relationship between TR and some of the components of company performance are worrying because of their inverse relationship. This is especially true for NP and ROCE. ROCE is a good indication of the financial performance of SOEs with significant debt. Peyper (2017) reported that nine SOEs had debts of close to R700bn in the 2015/2016 financial year. Because ROCE decreased by 73% over the 9-year period, the inverse relationship with TR suggests that even though SOEs could not manage their debt and pay back their loans, TR increased.

Practical implications

From a practical point of view, this research identified certain performance measures that are of importance in determining CEO remuneration. State-owned entity boards and remuneration committees should meticulously consider turnover, OP, NP, liquidity and IFWE when determining CEO remuneration. This study therefore determined specific performance indicators affecting CEO remuneration in SOEs. By using these performance measures, SOE remuneration committees can determine the relationship between CEO remuneration and company performance based on reliable and statistically defensible measures. Further, by using these measures, SOE management can ensure that the correct measures are used to determine the remuneration components. In addition, the value of this research is that remuneration committees and SOE boards now have empirical evidence to determine CEO remuneration according to performance measures that are positive and significant to Schedule 2 SOEs. If these measures are implemented within SOEs, they could be considered to enhance the Code in King IV.

Based on the research findings, a framework merging financial measures needs to be developed and formalised with a link to SOE objectives. The frameworks, with clear performance measures linked to them, should be effectively monitored under a governance structure.

Limitations and recommendations

The research was limited to South African Schedule 2 SOEs and therefore excluded all other public entities. The conclusions may therefore not be generalisable to other entities without more research. In addition, this research only investigated the specific relationship between company performance and CEO pay and did not include information on the causal factors influencing CEO remuneration and the financial performance of the organisation. Another limitation could be the use of profitability as a measure of company performance. This is subject to criticism, as executives can manipulate profitability indicators (Attaway, 2000; Ngwenya & Khumalo, 2012). Therefore, the use of these measures in the present study could have had an effect on the results.

It is recommended that future studies focus on the specific industries within which SOEs operate. This recommendation is based on findings from, for example, Duffhues and Kabir (2008), as well as Goh and Gupta (2010), who found that the type of industry within which a company operates significantly influences the CEOs' remuneration. In addition, the relevance of IFWE in relation to the components of

CEO remuneration in SOEs was noted. However, there is a paucity of literature that either supports or disagrees with this finding. It is therefore recommended that future studies explore this relationship in more depth. As Conyon (2006) suggested, financial incentives are only one factor motivating executives. Executives are as likely to be motivated by other factors such as intrinsic factors of the job, career concerns, social norms and the like. It is therefore recommended that future studies include these factors in their study.

Conclusion

In this study, the researchers sought to contribute to the understanding of the relationship between CEO remuneration and the performance of South African SOEs. The results of abundant empirical research examining the relationship are surprisingly inconsistent and, at times, even contradictory.

This research contributes towards filling an important gap in organisational performance literature. It does so from two unique perspectives. Firstly, it introduces an SOE-specific focus to the examination of organisational performance measures. Secondly, it reviews multiple performance variables in determining company performance with emphasis on how the multiple variables are linked.

While the results of the present study suggest that there is a relationship between the CEOs' remuneration and SOEs' performance, the high CEO remuneration despite declining SOE performance during the study period is a concern. Moreover, the evidence of a negative relationship between the CEOs' remuneration and measures of the SOEs' performance suggests that the CEOs' remuneration is not aligned with all of the SOEs' performance measures. This may be a contributing factor with regard to poor performance of South African SOEs.

Even though CEO remuneration may not be excessive, the absence of a link between company performance and the remuneration of CEOs is concerning. The results therefore confirm that dissatisfaction with the CEOs' remuneration may be justified. This indicates that challenges still exist in maintaining a link between company performance and CEO remuneration. Furthermore, the results of this research indicate that there is a need in South Africa to link company performance with CEOs' and executives' pay through adherence to the recommendations of King IV.

Never in the history of South Africa has it been more important to ensure that executive remuneration is aligned to company performance. This is because of the prevailing economic climate, as well as the high levels of unemployment and social unrest. High executive remuneration that is not linked to company performance poses a long-term risk, not only to the continued existence of SOEs, but also to broader society. Until executive remuneration is perceived to be fair and aligned with company performance, it will continue to receive intense criticism from unions, regulators, shareholders and the public.

Authors' contributions

This research is based on the PhD study of M.L.B., of which M.H.R.B. was the supervisor and M.C. was the co-supervisor. M.L.B. wrote the article and M.H.R.B. and M.C. provided editorial inputs.

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An investigation into the effect of leadership style on stress-related presenteeism in South African knowledge workers

Authors:
Reuben George[1]
Manoj Chiba[1]
Caren B. Scheepers[1]

Affiliations:
[1]Gordon Institute of Business Science, University of Pretoria, South Africa

Corresponding author:
Caren Scheepers,
scheepersc@gibs.co.za

Orientation: Leadership styles influence knowledge workers' job-stress-related presenteeism (JSRP) and, ultimately, organisational performance. Knowledge workers generally work under strict deadlines in fast-paced, stressful environments, and require organisational support.

Research purpose: The objective of this study was to examine empirically the effect of three leadership styles, namely transformational, transactional and laissez-faire, on job-related-stress presenteeism in knowledge workers across a number of industries in South Africa.

Motivation for the study: Absenteeism has been the subject of much investigation but more research is required into the antecedents and consequences of presenteeism, the phenomenon of employees being physically present at work, but not fully functional and therefore unproductive. Illness as an antecedent to presenteeism has been studied, but limited attention has been given to presenteeism caused by stress. There are very few studies that investigate leadership styles as antecedents for JSRP and this study therefore sets out to provide quantitative evidence of this relationship.

Research design, approach and method: The researchers used a cross-sectional quantitative approach within the positivism research philosophy. Two questionnaires were administered: the multifactor leadership questionnaire form 6S and the job-related-stress presenteeism questionnaire. Descriptive statistics and Pearson's product-moment correlation were used to answer the research questions. The participants (N = 242) were knowledge workers, representing 12 widely categorised industries. The researchers analysed job role descriptions to ensure the respondents were all knowledge workers.

Main findings: Transformational leadership has a higher negative correlation with JSRP than does transactional leadership, whereas laissez-faire leadership has no significant relationship with job stress or JSRP.

Practical/managerial implications: The research provides a compelling case for investment into transformational and transactional leadership development by showing the preventative effect that transformational leadership and, to a lesser degree, transactional leadership, has on stress-associated presenteeism.

Contribution/value-add: Presenteeism lowers organisational performance even more than absenteeism does, and exists at huge cost to employees' quality of work-life. This empirical study, the first to use valid, reliable questionnaires to investigate the relationship between transformational, transactional and laissez-faire leadership on the one hand, and JSRP on the other, suggests that transformational leadership development should be prioritised.

Introduction

Today's dynamic and rapidly changing business environment creates severe challenges for leaders (Cao & Ramesh, 2008). Many organisations are having to operate with lean labour forces, and job demands place excessive pressure on employees (Hakanen, Schaufeli & Ahola, 2008). Moreover, volatile market demands, leading to rising job uncertainty, are becoming a substantial stressor for employees (Pohling, Buruck, Jungbauer & Leiter, 2016). It is therefore essential that organisations create and manage favourable work environments (Cummings et al., 2010); failure to do so negatively impacts long-term organisational performance (Schaufeli, Taris & Van Rhenen, 2008). An important trait in creating a favourable working environment is leadership behaviour

as leaders motivate, engage and satisfy the needs of their employees (Bolden, Gosling, Marturano & Dennison, 2003).

One of the challenges for today's leaders is presenteeism. Whitehouse (2005) defines this phenomenon as reduced productivity owing to events that distract employees from full productivity. Gosselin, Lemyre and Corneil (2013) contend that presenteeism is widespread, manifesting itself indiscriminately across occupational groups. This contention is taken into account in this study, which investigates the prevalence of presenteeism across a number of industries. Presenteeism is costly for organisations because of a lack of added value to the product or services rendered, or a decrement in employee performance (Hemp, 2004; MacGregor, Cunningham & Caverley, 2008; Munro, 2007; Prochaska & Prochaska, 2011). Organisations are therefore becoming increasingly concerned about the phenomenon as organisational performance is significantly impacted (Puig-Ribera, McKenna, Gilson & Brown, 2008). A number of scholars, specifically Zopiatis and Constanti (2010), Mathieu, Neumann, Hare and Babiak (2014), Kara, Uysal, Sirgy and Lee (2013), conclude that leadership behaviour impacts followers' stress and burnout levels. The current research therefore included leadership as an important variable.

Globalisation has forced organisations to develop competitive advantage by employing competent, talented and dedicated employees. Called 'knowledge workers' by Drucker (1992) (as cited in Joo, 2010, p. 70), they '… apply theoretical and analytical knowledge that is acquired through formal education in developing new products or services'. Yet, one of the characteristics of knowledge workers is their high turnover rate, with the resulting high costs to the organisations that employ them (Scheepers & Shuping, 2011).

Nielsen, Randall, Yarker and Brenner (2008) concluded that a relationship exists between a meaningful work environment, leadership and employee well-being. Effective leadership styles are therefore required to develop high-quality work environments that are conducive to knowledge workers' well-being and which ultimately contribute to achieving organisational goals. Knowledge workers are the focus of this study because of their importance to the success of organisations. Schaufeli et al. (2008) show that employee well-being is highly correlated with low levels of stress and leads to increased employee productivity. Other studies show that stress causes several negative outcomes, including burnout, employee turnover, as well as reduced productivity and well-being (Maslach & Leiter, 2008; Tarafdar, Tu, Ragu-Nathan & Ragu-Nathan, 2007). These, in turn, lead to stress-related presenteeism, an important construct under investigation in this study.

Purpose

There was therefore strong justification for conducting research in the field of presenteeism. This study set out to add to the body of knowledge about reducing presenteeism, particularly among knowledge workers, who play such an important role in achieving organisational competitive advantage. Its purpose was to empirically examine the effect of three leadership styles, namely transformational, transactional and laissez-faire leadership, on job-related-stress presenteeism in knowledge workers across a number of industries in South Africa. Although leadership has been extensively researched, it remains difficult to understand the full extent of the complex interrelationships involved in leadership processes (Zopiatis & Constanti, 2010). Leadership style is of particular interest to researchers (Ogbonna & Harris, 2000) as it impacts both employee and organisational performance.

Literature review

As the main purpose of this study was to analyse the effect of leadership styles on employee job-stress-related presenteeism (JSRP), 'job-stress-related presenteeism' and 'leadership' are the constructs examined in this review.

Presenteeism

Until a few years ago, research focussed on absenteeism in relation to employee efficiency and organisational performance, while presenteeism was largely ignored (Gosselin et al., 2013). This trend has changed over the last 3–5 years, however, and the concept of presenteeism has gained credibility among academics and practitioners. Munro (2007) suggests that presenteeism is another aspect of absenteeism while Prater and Smith (2011) believe it is the antithesis of absenteeism. Aronsson and Gustafson (2005) state that work-related factors cause attendance pressure and define presenteeism as 'the phenomenon of people who, despite complaints and ill health that should prompt rest and absence from work, are still turning up at their jobs' (Aronsson, Gustafsson & Dallner, 2000, p. 503). Gosselin et al. (2013) advise organisations to manage absenteeism without creating presenteeism.

The impact of absenteeism on the bottom line is well documented. For example, MacGregor et al. (2008) state that in Canada alone, billions of dollars are lost each year owing to absenteeism. Baker-McClearn, Greasley, Dale and Griffith (2010) report that absenteeism is the largest source of lost productivity for businesses in the United Kingdom. Absenteeism is trackable and it is possible to count its cost, but it is often impossible to tell when, and to what extent, employees are at work but simply not performing (presenteeism). MacGregor et al. (2008) report that the cost of sickness presenteeism may be even greater than that of sickness absenteeism. A white paper by the Health Enhancement Research Organisation (2014) suggests that presenteeism accounts for three-quarters of the cost of lost employee productivity, while absenteeism accounts for the fourth quarter. Demerouti, Le Blanc, Bakker, Schaufeli and Hox (2009) show that job demands placed on sick employees increase presenteeism and eventually lead to burnout. They say that 'employees get trapped in a "loss spiral" as symptoms of burnout lead to an accumulation of job demands and less

energy to cope with these demands' (p. 51). This is another example of presenteeism. Likewise, Chatterji and Tilley (2002) report that policies implemented by organisations to reduce absenteeism, such as reductions in sick pay, are more likely to increase presenteeism, which in turn, could lead to more illness and lower productivity. A US survey reported that 56% of employers experienced presenteeism because of some perceived problem in their organisation. Presenteeism in small organisations may be less when compared to medium and large organisations, as managers are more likely to regularly request feedback on tasks performed by subordinates (Matlay, 1999). Employee burnout and lost productivity were found to be 7.5 times greater in cases of presenteeism than absenteeism (Baker-McClearn et al., 2010), while McGregor, Iverson, Caputi, Magee and Ashbury (2014) report that the cost of presenteeism could be fourfold that of absenteeism.

Several studies focus on sickness as the antecedent for presenteeism (Aronsson, Gustafsson & Dallner, 2000; Baker-McClearn et al., 2010; Demerouti et al., 2009), and allergies, rheumatoid arthritis and chronic back pain have been linked to it (Munro, 2007). While valuable, these studies are too narrow in approach for a full understanding of presenteeism (Gilbreath & Karimi, 2012), rooted as they are solely in health-associated matters.

Job-stress-related presenteeism

Gilbreath and Karimi (2012) assert that:

> job-stress-related presenteeism is most closely the opposite of Rothbard's (2001, p. 656) conceptualisation of engagement, which focusses on attention – the cognitive availability and the amount of time one spends thinking about a role – and absorption – the intensity of one's focus on a role. (p. 116)

However, presenteeism is more than mere disengagement from, or low engagement in, work. Most definitions of engagement (Schaufeli, Salanova, Gonźalez-Roma & Bakker, 2002) characterise it as pervasive and role-based, whereas presenteeism is considered to be more transitory and situational.

The current study focusses on presenteeism as it relates to job stress. JSRP is a construct developed by Gilbreath and Karamini (2012) as a factor, other than illness, that causes employees to be less focussed on tasks. Chae, Seo and Lee (2011) provide empirical evidence of links between job stress, organisational effectiveness and individual performance, and show that increased job stress results in weaker organisational performance.

While Karlin, Brondolo and Schwartz (2003) studied job stress in relation to support from supervisors, their study did not consider the leadership or supervisory styles that may have played an important role in moderating or mediating the relationship. This research, recognising that leadership style is inextricably interwoven into the creation of conducive working environments, sought to expand the work of

Gilbreath and Karimi (2012) on JSRP by providing an understanding of how it is impacted by leadership style.

Leadership style

The literature defines leadership in a number of ways, for example, as the ability to guide followers towards shared goals and as a form of influence (Madlock, 2008). Kouzes and Posner (1987) define leadership as an observable set of skills and abilities. Historically, leadership studies tended to focus on characteristics and personality traits, but the focus has shifted towards the perceptions of followers and the contextual nature of leadership (Robbins & Coulter, 2005). New leadership theories pay greater attention to leaders' relationships with followers, as these contribute significantly to organisational success. Kara et al. (2013) quote a number of studies linking leadership styles to organisational commitment, organisational learning and adaptation, job satisfaction, employee motivation, as well as decreased absenteeism, a phenomenon particularly important to this study.

Bass's (1999) 'full range theory of leadership' suggests that there are three leadership styles, namely transformational, transactional and laissez-faire. According to Bodla and Nawaz (2010), transformational leaders are charismatic and motivate employees by inspiring them, considering them individually and stimulating their intellectual needs. Bass and Avolio (1993) suggest that transformational leadership is close to the prototype of leadership people have in mind when they describe their ideal leader, and that transformational leaders are more likely to be role models with whom subordinates want to identify. Transactional leaders, by contrast, specify tasks, monitor performance and provide a reward system. Laissez-faire leaders tend to avoid any involvement with their subordinates. Numerous researchers have investigated the relationship between these leadership behaviours and various phenomena, such as burnout, stress, job satisfaction and performance (Dale & Fox, 2008; Danish & Usman, 2010; Failla & Stichler, 2008; Yang, Huang & Wu, 2011; Zopiatis & Constanti, 2010).

Hetland, Sandal and Johnsen (2007) studied the effects of leadership style on burnout in a Norwegian information technology firm and concluded that each style impacted the level of employee burnout differently. The study described burnout, which results from job stress, as a syndrome consisting of emotional exhaustion, depersonalisation and lack of professional accomplishment, and which has detrimental effects for both the individual employee and the organisation. The researchers concluded that high transformational leadership was linked to low levels of burnout whereas high transactional leadership, although also linked to low levels of burnout, had weaker associations than did transformational leadership. High passive-avoidant (laissez-faire) leadership was linked to high levels of burnout. A summary of the results from previous research on transformational leadership shows that it is positively correlated to job satisfaction (Nielsen, Yarker, Randall &

Munir, 2009; Wolfram & Mohr, 2009), less stress (Bono & Meredith, 2007; Munir, Nielsen & Carneiro, 2010) and employee well-being (Skakon, Nielsen, Borg & Guzman, 2010).

Transactional leadership theories are founded on the idea that leader–follower relations are based on a series of exchanges or implicit bargains between leaders and followers (Zopiatis & Constanti, 2010). Research shows a relationship between transactional leadership styles and higher levels of stress in comparison with transformational leadership (Lyons & Schneider, 2009). Other studies have found that transactional leadership is related to lower levels of burnout (Kanste, Kyngas & Nikkila, 2007) and high job satisfaction as well as well-being (Morrison, Chappel & Ellis, 1997), but that these relationships are weaker than those associated with transformational leadership. The Skakon et al. (2010) study shows similar results.

A laissez-faire leader is one who avoids decision-making or supervisory responsibility and believes in freedom of choice for employees, leaving them alone to do as they want (Goodnight, 2004). This leadership style implies failure on the part of the manager to take responsibility for managing. In some studies, laissez-faire leadership was found to be associated with increased psychological distress, a lack of social support and job strain (Nyberg et al., 2009). Early research by Sosik and Godschalk (2000), however, found no relationship between laissez-faire leadership on the one hand and stress and burnout on the other.

While the above studies provide insight into the effects of leadership style on job stress, they offer limited understanding of how leadership styles affect presenteeism, a particular dimension of job stress. If organisations understood the influence of these leadership styles on JSRP, they could maximise their employees' potential and performance, which in turn could lead to greater organisational performance.

Research questions

This study addresses the following research questions:

- *Research question 1*: What is the relationship between transformational leadership and JSRP?
- *Research question 2*: What is the relationship between transactional leadership and JSRP?
- *Research question 3*: What is the relationship between laissez-faire leadership and JSRP?

Research design

Research approach

The researchers used cross-sectional, descriptive and quantitative research to collect primary data to answer the research questions. This approach enabled them to understand whether employees suffered from JSRP and to ascertain employee perceptions of their managers' leadership styles. This study built on the work of Gilbreath and Karimi (2012) and therefore adopted a similar approach. Instead of

investigating positive and negative behaviour, however, it sought to understand the effects of different leadership styles.

Research participants

The sample frame initially consisted of final-year Executive Masters in Business Administration (MBA) participants registered at a business school in Johannesburg, South Africa. The researchers deemed this frame appropriate as the focus of the study was on knowledge workers representing a variety of industries and at different levels within organisations. The researchers deemed the characteristics of the initial sample frame appropriate for these criteria. A dual-sampling technique was used. Purposive sampling was employed for the initial request for participation, followed by snow-ball sampling when the initial participants forwarded the link to others (Saunders, Lewis & Thornhill, 2012; Zikmund, Babin, Carr & Griffin, 2009). These non-probability sampling techniques led to a sample of $N = 242$ knowledge workers in South Africa. Their job role descriptions provided information about their work context. They all had direct, face-to-face interaction with their managers. The dual-sampling technique ensured that the three different leadership styles described above were represented in the sample. The participants represented a variety of sectors. A total of 35.1% worked in the financial and insurance sector, 23.6% in the information technology sector and 17.8% in the energy sector. The remaining 23.5% worked in the general consulting services, education, engineering, FMCG, healthcare, law and public sectors.

Measuring instruments

Leadership styles

To understand participants' perceptions of their managers' leadership styles, the multifactor leadership questionnaire (MLQ form 6S) adapted from Vinger and Cilliers (2006) was used. The MLQ form 6S is a self-reporting scale consisting of 21 items and three sub-scales: transformational leadership style (12 items, e.g., 'I feel good to be around my manager'), transactional leadership style (six items, e.g., 'My manager helps me find meaning in my work') and laissez-faire leadership style (three items, e.g., 'My manager does not ask more of me than what is absolutely essential'). A five-point Likert scale was used to evaluate the leadership styles. The scale anchors were: 0 – not at all; 1 – once in a while; 2 – sometimes; 3 – fairly often and 4 – frequently. The Cronbach's alpha for MLQ form 6S was $\alpha = 0.86$, greater than the acceptable limit of 0.70 (Hair, Black, Babin, Anderson & Tatham, 2006).

Job stress and job-stress-related presenteeism

To understand job stress, the researchers adapted the Gilbreath and Karimi (2012) JSRP scale. The researchers defined job stress in the questionnaire for participants as 'work-related activities caused by the demands placed on you by your leader', and it was measured using a two-item

scale, for example, 'My job has been extremely stressful'. A four-point Likert scale was used to evaluate job stress, with the scale anchors being: 1 – strongly disagree; 2 – disagree; 3 – agree and 4 – strongly agree. The reliability and validity of the construct job stress were established by Gilbreath and Karimi (2012), and it is thus an adequate measure to understand job stress. The Cronbach's alpha for job stress was α = 0.909, greater than the acceptable limit of 0.70 (Hair et al., 2006).

To understand JSRP, the researchers again adapted Gilbreath and Karimi's (2012) scale. This construct was measured using a six-item scale, for example, 'Mental energy I'd otherwise devote to my work is wasted on work stressors'. A three-point Likert scale was used to evaluate JSRP, with the following scale anchors: 1 – all the time; 2 – sometimes and 3 – never. The reliability and validity of the construct for JSRP were established by Gilbreath and Karimi (2012). The Cronbach's alpha for JSRP was α = 0.828, greater than the acceptable limit of 0.70 (Hair et al., 2006).

The reliability and validity of the instrument used to measure job stress were established by Gilbreath and Karimi (2012) and were acceptable. As the current study builds on their study, the instrument they used to measure job stress was employed in this research. Gilbreath and Karimi (2012) report a Cronbach's α = 0.80 for job stress.

Three open-ended questions were included in the questionnaire to understand what employees would like to change in their managers' leadership styles so that they could be more productive and not engage in presenteeism, for example, 'What changes in your manager would assist in alleviating stress and improve your performance?'

The instrument was pre-tested prior to the study, to ensure there were no problems in the design (Zikmund, 2003). It was administered to 20 randomly selected individuals, as well as an experienced researcher in the field of leadership, to ensure face and content validity. No significant changes were noted.

Procedure and ethical considerations

The questionnaire was distributed, via a link to an online survey, to 160 employees from different service-orientated industries, selected using purposive sampling. Snow-ball sampling was then used to gain more respondents as the initial participants were asked to forward the link to individuals within their networks. The exact response rate to the snow-balling sampling was difficult to ascertain; it did, however, allow for the collection of a greater number of respondents than were initially targeted, over the period from June to October 2013. A total of $N = 272$ responses was received, of which $N = 242$ responses were complete and retained for the final analysis. Ethical clearance was obtained from the University of Pretoria's Gordon Institute of Business Science Research Ethics Committee. All respondents were assured of confidentiality and anonymity, with participation being voluntary.

Data analysis

Several steps were taken to analyse the data gathered by this study using Statistical Package for Social Sciences (SPSS) version 22. The descriptive statistics (mean, median, mode and standard deviation), as well as skewness and kurtosis, were measured to indicate variation in the sample data collected, which allowed for a thorough study to be conducted on the topic, for example, percentage of males and females that took part in the survey; different respondent age groups; size of the organisation; and respondents' interactions with their managers.

Factor analysis using the principle component analysis (PCA) method was used to reduce the number of variables that need to be analysed, thus allowing for the grouping of variables to create a single value (Field, 2005). The Kaiser-Meyer-Olkin (KMO) index and the Bartlett's test of sphericity ensured that factor analysis was appropriate in this study as a data reduction tool. KMO indices greater than 0.5 and the Bartlett's test of sphericity significant at $p < 0.05$ are suggested for an acceptable factor analysis (Field, 2005). Cronbach's alpha test was conducted to establish reliability of the research instrument in the South African setting. The generally agreed and accepted lower limit for Cronbach's alpha is 0.70 (Hair et al., 2006).

Each of the leadership styles was evaluated according to factors. Upon completion of the data-coding process, the numerical value for the questions under each factor was aggregated to create a score for that factor. Once the score for each factor was calculated, the final score for the perceived leadership style was the average of the factors, relevant to the leadership style. The same process was followed for all the variables so that each variable had a final score based on the participant's response.

Final scores for each of the variables needed to be calculated to evaluate whether a relationship existed between leadership style and JSRP. For example: if a respondent selected option '3' for all the questions in the questionnaire, each factor in the leadership section of the questionnaire had three questions, jobs stress had two and JSRP had six. The score for each factor was aggregated to give a score of 9 (3 for leadership selecting option 3 for all three questions, + 3 for job stress selecting option 3 across both questions, + 3 for JSRP selecting 3 for all six questions) = 9:

- Factor 1 (idealised influence): score 9.
- Factor 2 (inspirational motivation): score 9.
- Factor 3 (intellectual stimulation): score 9.
- Factor 4 (individualised consideration): score 9.
- Factor 5 (contingent reward): score 9.
- Factor 6 (management by exception): score 9.
- Factor 7 (laissez-faire): score 9.

Factors 1–4 are related to transformational leadership and hence the final score for transformational leadership would be the average of Factors 1–4 (Factor 1 + Factor 2 + Factor 3 + Factor 4)/4 = (9 + 9 + 9 + 9)/4 = 36/4 = 9. Thus, the

respondent's score for transformational leadership would be 9. Similarly, Factors 5 and 6 are related to transactional leadership, hence the final score for transactional leadership would be the average of Factors 5 and 6 (Factor 5 + Factor 6)/2 = (9 + 9)/2 = 9. Factor 7 is related to laissez-faire leadership, hence the final score would be the average of Factor 7 (Factor 7)/1 = 9/1 = 9. The final score for job stress would be the average between the two questions measuring job stress, and if a participant scored 3 for each of the questions, the final score would be (3 + 3)/2 = 3. Similarly, JSRP has six questions, and if a participant scored 3 for each question, the final score would be the average of the scores for each question (3 + 3 + 3 + 3 + 3 + 3)/6 = 3.

The same process was followed for all respondents and the overall average was calculated for each of the factors. If the overall average calculated was 2.5 for all the variables, then a score ≤ 2.5 would be categorised as 'low' and a > 2.5 would be categorised as high. From the example, the respondent's score was categorised as high for all the variables to test for associations between them.

Once the final scores for each respondent for each of the variables were calculated, descriptive statistics were used to categorise the data. The mean for the final score of the three variables was calculated by adding the values of the scores and then dividing them by the number of observations. Based on the mean, each respondent's score on the three constructs was then categorised as 'high' or 'low'. The low and high categories for each variable were compared against each other.

To understand if there were differences between the high and low categories, the one-sample t-test was employed. The test also ensured that the sample was representative of the population (Field, 2005). The test was applied to each factor to determine if the responses were significantly different, rather than based only on percentage splits. Once the researchers were confident that the difference between the high and low categories was significant, they subjected the data to correlational analysis. To answer the research questions, Pearson's correlation tests, chi-square and cross-tabulations were used to establish if there were any associations between factors. The chi-square test is used to find relationships between two variables, while cross-tabulation shows the frequency of joint occurrences between the two variables. For cross-tabulations, two categorical variables were used. The variables were categorised as 'low' or 'high' based on their final score, as described above. The observed counts and percentages in a cross-tabulation describe the relationship. A 2 × 2 cross-tabulation was performed between two variables and the same two-step process was followed to understand the associations between all the variables. All statistical analyses were performed at a 95% confidence interval, $p = 0.05$.

Results

A total of 272 responses were received, of which 242 were complete. The sample consisted of 108 female and 134 male respondents. A total of 44 respondents were in the age group of 20–29 years, 124 were aged between 30 and 39 years, 62 were aged between 40 and 49 years and 12 were aged 50 years and above. The sample comprised 12 sectors of the economy, with the largest responses from the finance and insurance (35.1%), information technology (23.6%) and energy (17.8%) sectors. The remaining respondents (23.5%) worked in consulting services, education, engineering, FMCG, healthcare, law, the public sector and 'others'. A total of 221 respondents were employed in organisations with more than 50 employees and 21 in organisations with less than 50 employees. A total of 138 respondents met with their managers more than once a week, 67 once a week and 37 very rarely.

Table 1 indicates that PCA was appropriate, based on the KMO measures and Bartlett's test of sphericity.

While the Cronbach's alpha results for laissez-faire leadership were weak, the researchers retained the factor, as this may not show uni-dimensionality of the construct, see Table 2. All other measures of reliability were acceptable (Hair et al., 2006).

A total of seven sub-factors were analysed within the three leadership styles. Transformational leadership: four sub-factors (idealised influence, inspirational motivation, intellectual stimulation and individualised consideration); transactional leadership: two sub-factors (contingent reward and management by exception) and laissez-faire: one sub-factor (no formal structure). Table 3 reports on the mean and standard deviation of the leadership sub-scales from the responses.

There is a good spread of data based on the options selected by the respondents that provide great value in understanding the relationship between leadership styles and JSRP.

The summary of the sub-constructs is displayed in Table 4.

Leadership styles

The t-test indicated that, with regard to the sub-scales.

TABLE 1: Results of principle component analysis, Kaiser-Meyer-Olkin index, Bartlett's test of sphericity, Cronbach's alpha and average score for factors.

Dimension	KMO	Bartlett's test of sphericity		
		Chi-square	Degrees of freedom	Significance
Transformational	0.952	2210.567	66	0.000
Transactional	0.785	495.939	15	0.000
Laissez-faire	0.568	61.441	3	0.000
Job stress	0.500	284.803	1	0.000
JSRP	0.841	502.725	15	0.000

JSRP, job-stress-related presenteeism; KMO, Kaiser-Meyer-Olkin.

TABLE 2: Cronbach's alpha coefficients.

Dimension	Cronbach's alpha	Number of items
Transformational	0.936	Q1–12
Transactional	0.696	Q13–18
Laissez-faire	0.532	Q19–21
Job stress	0.909	Q22–23
Job-stress-related presenteeism	0.828	Q24–29

TABLE 3: Descriptive statistics of the leadership style sub-factors.

Questions	Mean	Median	Mode	Std. deviation	Skewness	Kurtosis
Question 1	2.64	3	3	1.08	-0.43	-0.63
Question 2	2.46	3	3	1.30	-0.56	-0.70
Question 3	2.54	3	3	1.27	-0.59	-0.68
Question 4	2.31	2	3	1.21	-0.25	-0.87
Question 5	1.84	2	1	1.22	0.12	-0.96
Question 6	1.83	2	2	1.34	0.09	-1.12
Question 7	2.08	2	3	1.30	-0.11	-1.13
Question 8	1.98	2	1	1.25	0.01	-1.02
Question 9	1.87	2	2	1.20	0.03	-0.97
Question 10	1.90	2	1	1.36	0.15	-1.15
Question 11	1.95	2	1	1.24	0.05	-1.08
Question 12	1.59	1	0	1.35	0.38	-1.08
Question 13	1.48	1	0	1.34	0.46	-0.97
Question 14	1.67	2	1	1.30	0.31	-0.98
Question 15	1.53	1	0	1.32	0.36	-1.10
Question 16	2.95	3	4	1.06	-0.90	0.23
Question 17	2.63	3	3	1.18	-0.63	-0.45
Question 18	1.90	2	3	1.26	0.03	-1.04
Question 19	2.58	3	3	1.12	-0.77	0.14
Question 20	2.34	3	3	1.19	-0.44	-0.66
Question 21	1.69	2	2	1.25	0.11	-1.10

TABLE 4: Sub-construct means, standard deviations and t-values.

Leadership style	Mean	Std. deviation	t
Transformational leadership	6.25	3.028	-
Idealised influence	7.64	3.309	2.03*
Inspirational motivation	5.98	3.167	1.46**
Intellectual stimulation	5.93	3.332	1.67**
Individualised consideration	5.43	3.419	2.86*
Transactional leadership	6.08	2.600	-
Contingent reward	4.68	3.435	2.95*
Management by exception	7.48	2.419	3.37*
Laissez-faire leadership	6.61	2.560	1.32**

*, $p < 0.05$; **, $p > 0.05$

Idealised influence

Respondents reported that they had faith and trust in their managers and perceived them as role models. There was a significant difference between respondents that reported they had faith and trust in their managers and perceived them as role models and those that did not. The differences in responses were therefore not owing to chance but owing to real differences that could be expected in the population as well.

Inspirational motivation

Respondents reported that their managers do not provide a vision for their employees to find meaning in their work. There were no significant differences between respondents who reported that their managers provide a vision for their employees to find meaning in their work, and those who did not. This indicates that the differences observed in response to inspirational motivation were not 'real' but owing to chance.

Intellectual stimulation

Managers do not provide intellectual stimulation for their employees to find meaning in their work. There was no significant difference between those respondents who reported that their managers provide intellectual stimulation to find meaning in their work, and those who did not. This indicates that the differences observed in response to intellectual stimulation were not 'real' but owing to chance.

Individualised consideration

Managers show little interest in their well-being. There was a significant difference between respondents who reported that their managers show little interest in their well-being and those who did not. These differences were therefore not owing to chance but reflected real differences that can be expected in the population as well.

Contingent reward

There was a significant difference between respondents who reported that their managers emphasise what is expected from them and recognise their accomplishments, and those who did not. The difference is real and not owing to chance and can be expected in the population as well.

Management by exception

There was also a significant difference between the respondents who reported that their managers inform them about their job requirements and are content with standard performance, and those who did not. These differences are therefore not owing to chance.

No formal structure

There was no significant difference between respondents reporting that their managers are content with subordinates doing their own thing, and those who reported they were not. Therefore, what was observed is not 'real' and not applicable to the population.

Leadership style was considered as a factor contributing to job stress, which in turn caused JSRP. There was a positive moderate correlation between job stress and JSRP, r (240) = 0.529, $p < 0.05$.

Once job stress and JSRP were categorised as low or high, a cross-tabulation was conducted to evaluate if low job stress is related to low JSRP, and vice versa. All expected cell frequencies were greater than five, and there was a significant association between high and low job stress and high and low JSRP, $X^2(1) = 37.614$, $p = 0.000$.

Gilbreath and Karimi (2012) established that job stress caused by positive or negative supervisor behaviour results in JSRP. In this study, leadership style was considered to be the main factor that causes job stress, which in turn causes JSRP. For both the job stress and JSRP sections in the questionnaire, the final scores were calculated using the process defined above. Pearson's r correlation test was conducted to assess significant associations between the variables of leadership, job stress and JSRP. Cross-tabulation and chi-square tests were also performed to establish if a significant relationship existed between these two variables.

As Table 5 indicates, there is a moderate positive association between job stress and JSRP, indicating that an increase in job stress increases JSRP. Transformational leadership and transactional leadership are significantly associated with JSRP, while laissez-faire leadership is not significantly associated with JSRP, at a 95% confidence interval. For transformational leadership, results indicate a weak negative

TABLE 5: Pearson's correlation and associated chi-square values between leadership styles and job stress and job-stress-related presenteeism.

Dimension	Pearson's correlation	Chi-square
Transformational leadership and JSRP	-0.271**	8.939**
Transactional leadership and JSRP	-0.196**	6.537**
Laissez-faire leadership and job stress	0.106	0.130
Laissez-faire leadership and JSRP	0.121	0.110
Job stress and JSRP	0.529**	37.614**

JSRP, job-stress-related presenteeism.
**, $p < 0.05$

TABLE 6: Cross-tabulation table.

Dimensions	Job-stress-related presenteeism		Job stress	
	High	Low	High	Low
Transformational leadership				
High	54.0	60.0	-	-
% within transform	47.4	52.6	-	-
Low	85.0	43.0	-	-
% within transform	66.4	33.6	-	-
Transactional leadership				
High	50.0	54.0	-	-
% within transact	48.1	51.9	-	-
Low	89.0	49.0	-	-
% within transact	64.5	35.5	-	-
Laissez-faire leadership				
High	78.0	60.0	83.0	55.0
% within Laissez	56.5	43.5	60.1	39.9
Low	61.0	43.0	65.0	39.0
% within Laissez	58.7	41.3	62.5	37.5

correlation; JSRP decreases as 'level' of transformational leadership increases. For transactional leadership, there is a weak positive relationship; JSRP increases with an increase in the 'level' of transactional leadership.

Table 5 also shows the chi-square results. There is a significant positive relationship between job stress and JSRP. It is therefore possible to evaluate the relationship between the leadership styles under study and JSRP, as both tests demonstrate a strong association between job stress and JSRP.

Cross-tabulation tests (Table 6) were also performed to establish if there was a significant relationship between the two variables.

Results for research question 1 (What is the relationship between transformational leadership and job-stress-related presenteeism?)

There is a negative relationship between transformational leadership and JSRP. The cross-tabulation below indicates that 60 (52.6%) of the respondents who perceived their managers as having high transformational leadership style exhibited low JSRP and 85 (66.4%) respondents, whose managers had low transformational leadership style, exhibited high JSRP. In both instances (low and high categories), the results point towards an association between transformational leadership style and JSRP; there is a strong positive association between low transformational leadership style and high JSRP. The Pearson's r statistic for correlation between transformational leadership and JSRP is -0.271. The correlation value is close to 0, indicating that there is a relationship between the two variables, although it is weak. However, it is still significant and thus important. As transformational leadership style value increases, the JSRP value decreases.

Results for research question 2 (What is the relationship between transactional leadership and job-stress-related presenteeism?)

There is a negative relationship between transactional leadership and JSRP. The results from the cross-tabulation indicate that 54 (51.9%) of the respondents who perceived their managers as having high transactional leadership styles exhibited low JSRP. In both instances (low and high categories), the results point towards an association between transactional leadership style and JSRP. The chi-square test results indicate that there is a strong relationship between the two variables, statistically significant at significance level 0.05 ($p < 0.05$).

The Pearson's correlation shows that the correlation is statically significant at 1% significance level as the significance value is 0.002. The Pearson's r statistic for correlation between job stress and JSRP is -0.196. The correlation value shows a weak relationship (close to 0) between the two variables. However, it is still significant and thus important: the change in one variable is correlated with changes in the other variable, in this case transactional leadership style and JSRP.

The relationship is negative, which means as transactional leadership style increases, JSRP decreases. Both these tests demonstrate an association between the two variables (transactional leadership style and JSRP), but this association is weaker than that between transformation leadership style and JSRP. The transactional leadership style is negatively correlated with JSRP, while transformational leadership style results in lower JSRP.

Results for research question 3 (What is the relationship between laissez-faire leadership and job-stress-related presenteeism?)

There is no relationship between laissez-faire leadership and JSRP. The cross-tabulation results indicate that both high and low laissez-faire leadership styles cause high job stress. There is therefore no relationship between these two variables. The chi-square test result also indicates the lack of a relationship between the two variables as they are statistically insignificant, even at $p < 0.05$. In addition, the Pearson's correlation shows no correlation between the two variables.

Figure 1 depicts the findings of the study. Overall, a multiple regression was computed to predict job stress from JSRP, transformational leadership, transactional leadership and laissez-faire leadership styles. There was linearity as assessed

through partial regression plots and plots against the studentised residuals against predicated values. The Durbin–Watson was 2118, therefore independent of residuals. No evidence of multicollinearity was noted as tolerance values were less than 0.1. The multiple regression statistically predicted job stress, $F(4237) = 3886$, $p < 0.05$, adjusted $R^2 = 0.046$. Only JSRP added statistically to the prediction, $p < 0.05$. Regression coefficients and standard errors are presented in Table 7.

Discussion
Outline of the results

Presenteeism is a growing concern for organisations (Hemp, 2004; MacGregor et al., 2008; Prochaska & Prochaska, 2011). Managing stress has become an acutely important skill for leaders today, as increasing job demands burden knowledge workers even further. If not properly managed, knowledge workers could withhold their intellectual capital and take it with them, if and when they choose to leave (Pearce, 2007). Studies have also revealed the negative impact job stress has on productivity and organisational effectiveness (Cummings et al., 2010). The objective of this study was to build on Gilbreath and Karimi's (2012) research; to understand the impact and influence of leadership style on presenteeism,
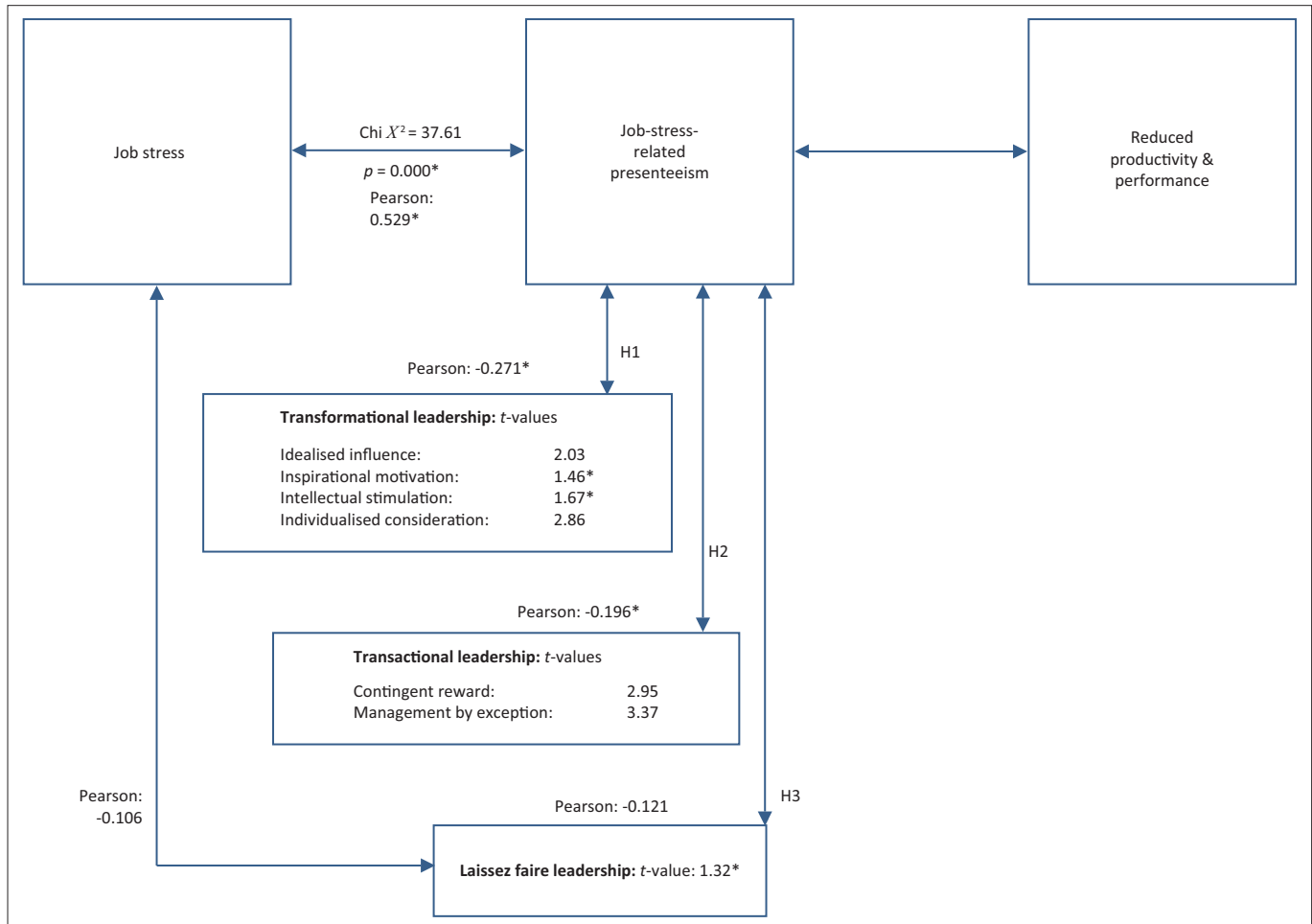
*, significant at $p < 0.05$

FIGURE 1: Illustration of Pearson correlation coefficients, t-values and chi-square of stress, job-stress-related-presenteeism and leadership style.

TABLE 7: Summary of multiple regression analysis.

Variable	B	SE B	t
Constant	5.243	0.607	8.643*
JSRP	-0.551	0.160	-3.443*
Transformational leadership	-0.042	0.077	0.585
Transactional leadership	-0.046	0.092	0.615
Laissez-faire leadership	-0.008	-0.100	0.881

B, unstandardised regression co-efficient; SE B, Standard error of the co-efficient; JSRP, job-stress-related presenteeism.

*, $p < 0.05$

thus adding to the body of knowledge on the topic and helping organisations to deal with presenteeism more effectively. In Gilbreath and Karimi's (2012) study on JSRP, the sample was drawn from Australian hospital employees. The current study took a more holistic approach by focussing on several industries, in the belief that presenteeism is likely to be found in all sectors.

This study aimed to provide a thorough analysis of presenteeism, based on leadership styles, across all types of organisations and industries. Interactions with managers were measured to ensure that the three leadership styles were covered. The data on interaction was well scattered, from 'more than once a week' to 'rarely meeting with managers'. The demographics of the sample population meant that the data gathered for the study were appropriate to answer the research questions.

Job stress and job-stress-related presenteeism

Several researchers (Phillips, Sen & McNamee, 2007; Schaufeli et al., 2008; Skakon et al., 2010) have shown that knowledge workers are subjected to work-related stress on a daily basis owing to leadership behaviour, workload, work–life balance and performance, as well as job security pressures. According to the Gilbreath and Karimi (2012) study, job stress results in JSRP. To analyse the impact of leadership style on JSRP, the association between job stress and JSRP needed to be validated, and the researchers discovered a strong association.

The cross-tabulation also indicates that a high percentage of respondents who experience job stress engage in presenteeism. This suggests that as knowledge worker stress reduces, presenteeism will also be reduced. The results show that job stress causes presenteeism. The results of the tests successfully validated Gilbreath and Karimi's (2012) claim that presenteeism is a much broader concept than previously thought, with numerous possible causes. The results also verified the utility and validity of their tool and may prove very useful for further research on understanding the effects of job stress on employees. The results may benefit organisations considerably as they allow them to focus on factors other than sickness to reduce presenteeism.

Transformational leadership style and job-stress-related presenteeism

Research on leadership style and job stress by Munir et al. (2010) showed that transformational leaders cause less job stress among subordinates. As job stress is significantly associated with presenteeism, measurements of the impact of transformational leadership style on presenteeism are discussed here. The results indicate that 66.4% of the respondents who rated their managers as exhibiting low transformational leadership style engage in high levels of presenteeism. This is a significant result and indicates that transformational leadership style is effective in reducing presenteeism.

The average score for idealised influence was noticeably higher than that for the remaining three factors associated with transformational leadership. Bass (1999) states that a leader is most likely to be strong on some factors but not all, which was confirmed by the results of this study. However, the results should encourage transformational leaders to develop themselves on all factors. The higher the score for each factor, the better the overall average score for the leader, which may result in reduced presenteeism. Associations between the individual factors and presenteeism were not tested, as the variable evaluated was leadership style (derived from the average score of the four factors). The result provides motivation for further research to understand the impact of each factor on presenteeism.

Although numerous studies (Bono & Meredith, 2007; Munir et al., 2010) have been conducted on the relationship between transformational leadership style and organisational outcomes, the current study is the first to investigate the impact of leadership styles on JSRP. The results suggest that leaders who adopt transformational leadership styles reduce employee presenteeism. Organisations may therefore benefit by developing transformational leaders, who are already known to significantly increase organisational effectiveness (Nielsen et al., 2008; Zopiatis & Constanti, 2010).

Transactional leadership style and job-stress-related presenteeism

Studies by Lyons and Schneider (2009) show that transactional leaders cause job stress, as their relationship is based on a series of exchanges or implicit bargains between them and their followers (Zopiatis & Constanti, 2010). The current study found that 64.5% of respondents who rated their managers as exhibiting low transactional leadership style engage in high levels of presenteeism.

The average score for 'management by exception' was considerably higher than that for 'contingent reward'. This means that respondents feel they are not being rewarded for good work, which could be a reason for subordinates to engage in presenteeism. Rewards and recognition are important as they motivate subordinates to perform better (Danish & Usman, 2010). The higher the score for each factor, the better the overall average score for the leader, which may result in reduced presenteeism. This is the first study to measure transactional leadership style in conjunction with JSRP. The systematic review by Skakon et al. (2010) on leadership and employee well-being shows that transactional leadership style has positive associations with employee

well-being and negative associations with job stress. The results from this study indicate that transactional leadership style is negatively correlated to JSRP. They complement previous studies and suggest that leaders who adopt transactional leadership style reduce employee presenteeism. However, the association is weaker than that found between transformational leadership and reduced presenteeism, a result similar to those of previous studies on other employee outcomes (Skakon et al., 2010). Leaders that adopt transactional leadership styles can reduce presenteeism but there is incentive to develop the characteristics of transformational leadership style as it has more influence on presenteeism. The combination of both leadership styles may allow organisations to reduce presenteeism significantly.

Laissez-faire leadership style and job-stress-related presenteeism

Skakon et al. (2010), in their systematic review of leadership styles of the last three decades, report that Skogstad, Einarsen, Torsheim, Assland and Hetland (2007) found laissez-faire leadership style and job stress to be related. However, Skogstad et al. (2007) also reported that Sosik and Godschalk (2000) found no relationship between them. The Cronbach's alpha score for the current study did not meet the benchmark score of 0.70. The internal validity of the data for this leadership style is therefore questionable and it might be necessary to revalidate the questions on the MLQ form 6S instrument used to measure laissez-faire leadership style. It could be a reason why previous research has not shown conclusive results. The results of this study are similar to the results of the Sosik and Godschalk's (2000) study on laissez-faire leadership style and job stress.

This study found no statistically significant relationship between laissez-faire leadership style and JSRP. Some researchers (Lyons & Schneider, 2009) mention that laissez-faire leadership style is not actual leadership, which may be true.

Managerial implications

Results show the significant influence of transformational leadership style on JSRP. There is evidence to suggest that transformational leaders are more likely to find less presenteeism among their subordinates. Furthermore, the results provide evidence that transactional leadership style is also negatively associated with JSRP but that these associations are weaker than those between transformational leadership styles and JSRP. This is consistent with the theories (Lyons & Schneider, 2009; Munir et al., 2010) mentioned earlier about leadership style and job stress. The test results for laissez-faire leadership style and job stress show that there is no relationship between these variables, and similarly between laissez-faire leadership style and JSRP. As there has been only one reported study (Gilbreath & Karimi, 2012) to measure JSRP, the results of this study add to this body of knowledge. The results confirm that leadership style can be used as a predictor of JSRP and that certain leadership styles may affect the degree to which employees experience JSRP.

Limitations of the study and directions for future research

Previous research has focussed mainly on 'sickness presenteeism' (Demerouti et al., 2009; Hansen & Andersen, 2008; Johns, 2010). It is hoped that the new conceptualisation of presenteeism presented in this study will encourage further research in this field. The objective was to evaluate the effect of leadership style on stress-related presenteeism using the 'full range theory of leadership' (Bass, 1999; Bass & Avolio, 2004); future studies into the impact on stress-related presenteeism of other kinds of leadership, such as authentic, situational or servant leadership styles, would be beneficial.

One limitation of this study is the lack of industry-specific analysis on stress presenteeism. Valuable information could be drawn from the nature, size and type of industry. It will also be important for future studies to focus on the relationship between gender and stress-related presenteeism. Prater and Smith (2011) show that presenteeism is the antithesis of absenteeism. In future research, it will be important to evaluate if the factors that cause absenteeism also contribute to presenteeism.

The study confirmed the relation between job stress and presenteeism, supporting Gilbreath and Karimi's (2012) view that presenteeism can have numerous possible causes. It will be important for future research to consider presenteeism as an outcome with a variety of antecedents, and to discover which antecedents are most prevalent and have the strongest effects.

Conclusion

In conclusion, presenteeism has become an important subject of investigation as it has been shown to be even more costly than absenteeism. This study sought to advance the research into this phenomenon by analysing the effect of three leadership styles on employee JSRP. Specifically, it attempted to expand the research of Gilbreath and Karimi (2012) by providing an understanding of how JSRP is impacted by leadership style. This was felt to be vital, as if organisations understood the influence of leadership on JSRP they could maximise their employees' potential and performance, which in turn could lead to greater organisational performance.

The results provide a compelling case for investment into transformational and, to a lesser extent, transactional leadership development. They show the preventative effect that both styles of leadership have on stress-associated presenteeism. Laissez-faire leadership, on the contrary, was shown to have no significant relationship with job stress or JSRP.

The study suggests that leaders who adopt transformational leadership styles are most successful in reducing employee presenteeism and therefore that this type of leadership development should be prioritised.

Leaders that adopt transactional leadership styles can also reduce presenteeism, but there is incentive to develop the characteristics of transformational leadership style as it has more influence on presenteeism. The combination of both leadership styles, however, may allow organisations to reduce presenteeism significantly.

It is hoped that these findings will prompt organisations to focus their efforts on developing leaders capable of reducing presenteeism which in turn will increase their competitive advantage.

Acknowledgements

Competing interests

Authors' contributions

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Investigating strengths and deficits to increase work engagement: A longitudinal study in the mining industry

Authors:
Pule Mphahlele[1] ⓘ
Crizelle Els[1] ⓘ
Leon T. de Beer[1] ⓘ
Karina Mostert[1] ⓘ

Affiliations:
[1]WorkWell Research Unit for Economic and Management Sciences, North-West University, South Africa

Corresponding author:
Crizelle Els,
crizelle.els@nwu.ac.za

Orientation: The motivational process of the Job Demands-Resources (JD-R) model indicates that job resources are the main predictors of work engagement. Previous research has found that the two job resources perceived organisational support (POS) for strengths use and POS for deficit correction are also positively related to work engagement. However, the causal relationships between these variables have not been investigated longitudinally.

Research purpose: To determine if POS for strengths use and POS for deficit correction are significant predictors of work engagement over time.

Motivation for the study: In the literature, empirical evidence on the longitudinal relationships between work engagement and specific job resources, namely POS for strengths use and POS for deficit correction, is limited.

Research design, approach and method: A longitudinal design was employed in this study. The first wave elicited a total of 376 responses, while the second wave had a total sample size of 79. A web-based survey was used to measure the constructs and to gather data at both points in time. Structural equation modelling was used to investigate the hypotheses.

Main findings: The results indicated that both POS for strengths use and POS for deficit correction are positively related to work engagement in the short term. However, only POS for deficit correction significantly predicted work engagement over time.

Practical and managerial implications: The results provide valuable insights to organisations by providing knowledge regarding which approach influences work engagement levels of their employees in the short and long term.

Contribution or value-add: The study contributes to the limited research on what job resources predict work engagement over time.

Introduction

It is evident that the mining industry is facing a challenging crisis, globally as well as in South Africa. To gain investor confidence, organisations in the industry have to remain competitive and maximise the value of existing assets (Jamasmie, 2015). This is a tough challenge, considering the unavoidable necessity to respond to the drop in commodity prices, rising production costs and volatile working environments (Deloitte, 2016; Jamasmie, 2015; KPMG, 2016; PwC, 2014). As part of the response to the above-mentioned challenges, one of the assets on which organisations can maximise value is their employees, who can be trained and developed for optimal functioning (Salas, Tannenbaum, Kraiger & Smith-Jentsch, 2012). This strategy to achieve a competitive advantage through employees has been well researched and proven to be effective by numerous authors over the years (Barney, 1991; De Pablos & Lytras, 2008; Jassim & Jaber, 1998; Wright, McMaham & McWilliams, 1994).

In the past, studies on the concept of training and developing employees have been centred on the notion of improving or overcoming weaknesses or deficiencies (Goaverts, Kyndt, Dochy & Baert, 2011; Linley & Harrington, 2006). Practically, this has translated to employee shortcomings being identified and subsequently addressed through development initiatives. According to Noe (2010), the deficit approach has been well entrenched in various organisations for several decades. In addition, some organisations utilise the development approach to stay abreast of the changing world of work by continually encouraging employee learning attainment and transference to ensure sustainable success and a competitive advantage (Barney, 2002; Bassi, Ludwig, McMurrer

& Van Buren, 2000; Noe, 2010). Furthermore, numerous other studies on the deficit approach have provided scientific evidence of the positive outcomes from an organisational perspective. Salas et al. (2012) have found that higher levels of work engagement can be achieved when organisations support a deficit improvement approach. Similarly, Benson (2006) and Tansky and Cohen (2001) have discovered that organisational commitment is obtained through following this approach. Other outcomes of a deficit correction approach include higher job satisfaction and lower turnover intention (Lee & Bruvold, 2003), as well as increased performance (Abdullah, Ahsan & Alam, 2009, Anguinis & Kraiger, 2009).

The benefits resulting from the deficit improvement approach do however not escape criticism. Kretzmann and Mcknight (1993) have criticised that, as an intervention, it is reactive, as the problem would already be in existence. This has led to the study of more proactive approaches that focus on building what is already going right within organisations. This shift in paradigm occurred with the emergence of the positive psychology movement, where the focus is on what assists people to flourish, excel, experience flow and function optimally, as opposed to mainly focusing on improving their weaknesses (Linley, Joseph, Harrington & Wood, 2006).

Later on, the positive psychology paradigm was supported by the study on strengths, made prominent by Marcus Buckingham, which purports that people grow most in their areas of strengths (Buckingham & Clifton, 2001). This movement fuelled various other research studies on the application and use of strengths within the workplace and, subsequently, positive organisational outcomes have been attributed to the strengths approach. Various studies have shown that work engagement is one of the positive outcomes of the use of strengths (Botha & Mostert, 2014; Harter, Schidt & Hayes, 2002; Harzer & Ruch, 2012, 2013; Keenan & Mostert, 2013; Linley & Harrington, 2006; Stander, Mostert & De Beer, 2014; Van Woerkom, Oerlemans & Bakker, 2015). In addition, Clifton and Harter (2003) have indicated that productivity increases for employees who use their strengths. Organisational commitment was also found to be linked with the use of strengths within the organisation (Biswas-Diener, Kashdan & Minhas, 2011).

It is clear that there are positive organisational outcomes associated with both the deficit and strengths-based approaches. It therefore seems important to investigate the effect of *both* these approaches, not only one or the other, on important organisational outcomes. Indeed, recent studies investigating the contextual dependency of both approaches have emerged (Rust, Diessner & Reade, 2009; Van Woerkom et al., 2016). More specifically, Van Woerkom et al. (2016) reason that it is important for an organisation to be supportive of employees to use their strengths and improve or overcome their weaknesses. These authors argue that positive organisational outcomes are a result of employees who perceive their organisations to be supportive of them using

their strengths (perceived organisational support [POS] for strengths use) and improving their deficits (POS for deficit correction) (Van Woerkom et al., 2016).

Drawing on the arguments by Van Woerkom et al. (2016), the question arises as to what extent POS for strengths use and POS for deficit correction contribute to employee outcomes, specifically work engagement. Work engagement has been linked to bottom-line outcomes (Bakker, Albrecht & Leiter, 2011; George, 2010), is fundamentally a motivational concept and has been proven to have a positive effect on employee commitment and motivation (Sonnentag, 2011). In addition, researchers have indicated that there are organisations that leverage on employees with high levels of work engagement to create a competitive advantage (Christian, Garza & Slaughter, 2011; Macey & Schneider, 2008; Rich, LePine & Crawford, 2010).

Ample research on the antecedents of work engagement is available both locally (De Braine & Roodt, 2011; Mostert, Cronjé & Pienaar, 2006; Olivier & Rothmann, 2007; Rothmann & Jordaan, 2006) and internationally (Bakker, Demerouti & Euwema, 2005; Hakanen, Bakker & Schaufeli, 2006; Llorens, Schaufeli, Bakker & Salanova, 2007). Recently, studies have also started to focus on the effect of strengths use and deficit correction (SUDCO) on engagement (Botha & Mostert, 2014; Els, Mostert & Van Woerkom, 2015; Keenan & Mostert, 2013; Stander et al., 2014; Van Niekerk, Mostert & De Beer, 2016; Van Woerkom et al., 2016). These studies confirmed the predictive value of both SUDCO on engagement. However, all these studies were cross-sectional designs and therefore cannot determine whether there is a longitudinal relationship between SUDCO and work engagement, and cannot also make causal inferences.

As previously indicated, given the grave challenges that mining organisations face, the industry presents a significant context for the study of work engagement and how it can be improved. In a study conducted in the mining sector by Rothmann and Joubert (2007), organisational support (in the form of managerial support, communication, role clarity and the extent of work autonomy) was found to be a significant predictor of work engagement. Similarly, other forms of job resources (supervisor support and co-worker support) showed a positive relationship with work engagement in the platinum mining environment (Palo & Rothmann, 2016). While studies in various sectors have concluded positive organisational outcomes associated with POS for strength use and POS for deficit correction, these constructs have not been explored within the mining industry.

This study aims to add to the body of literature from a longitudinal perspective on the relationship between POS for strengths use, POS for deficit correction and work engagement over time in a two-wave study within the mining industry. Consequently, the objective of this article is to determine if POS for strengths use and POS for deficit correction are significant predictors of work engagement over time.

Literature review

Perceived organisational support for strengths use and deficit correction

In their study, Eisenberger, Huntington, Hutchison and Sowa (1986) concluded that employees develop global beliefs about how their organisations value their contributions and show care for their well-being. The authors derived the concept of POS, which explains the extent to which employees perceive that their organisations care for their well-being and value their contributions. Appropriating from the social exchange theory of Blau (1964), as well as the norm of reciprocity (Gouldner, 1960), POS theory suggests that as perceived support from the organisations increases for employees, an increase and strengthening of organisational commitment is highly probable (Eisenberger, Armeli, Rexwinkel, Lynch & Rhoades, 2001). This finding is supported by other studies, which have linked POS to other positive organisational outcomes, such as job satisfaction (Aquino & Griffeth, 1999; Shore & Tetrick, 1991), lower turnover intention, stress and withdrawal behaviour (Rhoades & Eisenberger, 2002) and work engagement (Rich et al., 2010; Saks, 2006).

On the basis of the organisational support theory, Van Woerkom et al. (2016) derived the concepts of POS for strengths use and POS for deficit correction. POS for strengths use is defined as the extent to which employees perceive and believe that their organisations support the use and application of their strengths within the workplace (Van Woerkom et al., 2016). Practically, that translates to organisations having human resources (HR) practices that allow for and encourage employees to utilise their strengths at work. According to Linley et al. (2006), strengths are a combination of talents (naturally recurring patterns of thoughts, feelings and behaviour), knowledge (facts and lessons learned) and skills. Buckingham (2007), on the other hand, explains that strengths are activities that are energising and performed with effortless excellence. As previously discussed, numerous positive organisational outcomes are associated with the use of strengths within the workplace, such as job satisfaction (Peterson, Stephens, Park, Lee & Seligman, 2009), organisational commitment (Biswas et al., 2011) and work engagement (Botha & Mostert, 2014; Harzer & Ruch, 2012, 2013; Stander et al., 2014; Van Woerkom et al., 2015).

With regard to deficits, Van Woerkom et al. (2016) argue that employees also rely on the support from the organisation to improve and develop their deficits. They define POS for deficit correction as the extent to which employees perceive and believe that their organisations support them to improve their deficits or weaknesses in the workplace.

The word 'deficit', according to *Oxford English Dictionary* (2017), is derived from the Latin word *deficere*, which means 'it is lacking'. In the workplace, the common language to describe this is 'weakness', which implies a personal defect or failing (Oxford English Dictionary, 2017), which relates to skills, knowledge and behaviour that are not fully developed according to a set standard. Traditionally, employee development in organisations was fundamentally from a deficit improvement perspective. Well-entrenched HR processes such as coaching, performance appraisals, training and so forth can give testimony to that, where set performance standards are used as a benchmark to which employees should comply with (Linley & Harrington, 2006). As previously discussed, there are positive organisational outcomes that are linked to the deficit improvement approach, which include organisational commitment (Bartlett, 2001), job satisfaction (Schmidt, 2007), decrease in turnover intention (Pfeffer & Sutton, 2006) and work engagement (Bakker & Geurts, 2004).

Perceived organisational support for strengths use and perceived organisational support for deficit correction in the framework of the Job Demands-Resources model

One theory that is often used to explain the motivational process of work engagement is the Job Demands-Resources (JD-R) model. The fundamental assumption of this model is that every occupation has its own sources of employee well-being and these can be classified into two categories, job demands and job resources (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner & Schaufeli, 2001). Demerouti and Bakker (2011) further explain that the JD-R model is applicable to various occupational settings regardless of the demands and resources present.

Job demands refer to those:

> physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs. (Bakker & Demerouti, 2007, p. 312)

Typical examples of job demands could be unfavourable working conditions, work overload, strict deadlines, and cognitive and emotional demands. Job resources, on the other hand, are defined as:

> those physical, social, or organisational aspects of the job that may do any of the following: (1) be functional in achieving work goals; (2) reduce job demands and the associated physiological and psychological costs; (3) stimulate personal growth and development. (Bakker & Demerouti, 2007, p. 312)

Typical examples include autonomy, social support, career opportunities and role clarity.

One of the main assumptions of the JD-R model is that there are two underlying processes: a health impairment process and a motivational process. When there is not enough time to recover or recuperate from one's job demands, this could lead to mental and/or physical exhaustion, such as burnout, and eventually ill-health symptoms (Bakker et al., 2005). This is known as the health impairment process. The motivational process implies that job resources mitigate the negative effects of job demands and may lead to increased work engagement, and eventually positive organisational

outcomes, such as organisational commitment (Bakker, Demerouti, Taris, Schaufeli & Schreurs, 2003).

As stated earlier, the motivational process of the JD-R model implies that work engagement is positively influenced by job resources, such as autonomy, social support and role clarity (Bakker et al., 2003, 2005; Bakker, Hakanen, Demerouti & Xanthopoulou, 2007). This has encouraged other researchers to discover other possible job resources within the work environment. Van Woerkom et al. (2016) conceptualise POS for strengths use and POS for deficit correction as specific forms of job resources. According to these authors, POS for strengths use can be classified as a job resource as it creates an environment that affords employees the opportunity to apply their potential and full capacity (strengths) to achieve organisational goals (Demerouti & Bakker, 2011; Van Woerkom et al., 2016). The application and use of strengths in the workplace have been attributed to higher levels of work engagement (Harter et al., 2002), increased job satisfaction (Peterson et al., 2009) as well as an increase in organisational commitment (Biswas-Diener et al., 2011). Similarly, Van Woerkom et al. (2016) describe POS for deficit correction as a job resource. Training and development initiatives, over the years, have been attributed to enhancing organisational performance and delivering positive results (Arthur, Bennett, Edens & Bell, 2003; Keith & Frese, 2008; Morris & Robie, 2001). Tansky and Cohen (2001) have discovered that the deficit approach leads to increased organisational commitment by employees. Lee and Bruvold (2003), on the other hand, have associated the development of deficits with an increase in job satisfaction, while Schaufeli and Bakker (2004) have recorded higher levels of work engagement.

Based on the definition of job resources according to the JD-R model, it is clear that both POS for strengths use and POS for deficit correction (1) assist in the achievement of work goals, (2) assist in dealing with job demands and (3) stimulate the personal growth and development of employees. In addition, both POS for strengths use and POS for deficit correction activate similar motivational processes as do other job resources, with positive outcomes such as the ones described above.

Relationships between perceived organisational support for strengths use and perceived organisational support for deficit correction and work engagement

Work engagement is a well-researched topic in the field of industrial psychology. It is defined as a 'positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption' (Schaufeli & Bakker, 2004, p. 295). Vigour refers to high levels of energy that one devotes to one's work, and the ability to face challenges without losing energy. Dedication refers to a strong identification with one's work. Emotions such as pride, enthusiasm and inspiration are experienced. Absorption refers to the state where an employee is immersed in his or her work under the perception that time flows rapidly (Schaufeli & Bakker, 2004). Some

researchers have indicated that vigour and dedication comprise the core dimensions of work engagement. Absorption on the other hand has been equated to flow by some researchers (González-Roma, Schaufeli, Bakker & Lloret, 2006; Langelaan, Bakker, Van Doornen & Schaufeli, 2006), and as a consequence of work engagement (Schaufeli & Bakker, 2004). Therefore, several studies only include the two core dimensions of vigour and dedication.

Research on work engagement suggests a win-win situation for both employer and employee. For the organisation, work engagement is positively related to customer satisfaction (Salanova, Agut & Peiró, 2005), financial returns (Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009) and attaining and maintaining a competitive advantage (Bakker, Schaufeli, Leiter & Taris, 2008). For employees, work engagement has been associated with good health and a positive work affect (Demerouti, Bakker, De Jonge, Janssen & Schaufeli, 2001) as well as with in-role performance (Schaufeli, Taris & Bakker, 2006).

Given several studies that prove that job resources are the main predictors of work engagement, it is therefore expected that both POS for strengths use and POS for deficit correction lead to increased levels of work engagement. In studies conducted by Botha and Mostert (2014) and Stander and Mostert (2013), POS for strengths use was found to have a significant positive relationship with work engagement. This is consistent with Buckingham's (2007) conclusion that those activities completed from a strengths approach are energising and will be performed with excellence, which practically can be less time-consuming. As a result, it is expected that employee performance and engagement levels will increase.

From an extrinsic motivational perspective, POS for strengths use creates a work environment where employees can utilise their potential, abilities and efforts to accomplish and execute their work tasks well (Demerouti & Bakker, 2011; Van Woerkom et al., 2016). In support of this, Biswas-Diener (2010) explains that employees who apply their strengths feel more energised and may derive fulfilment from their jobs. Linley and Harrington (2006) also found a positive relationship between strengths use and psychological state of fulfilment and satisfaction about employees' abilities. This creates feelings that may lead to increased levels of work engagement. It is therefore expected that a significant positive relationship will exist between POS for strengths use and work engagement (*Hypothesis 1a*).

With regard to POS for deficit correction, organisations that support employees to rectify their weaknesses can minimise and, in some cases, also eliminate any skills and/or behaviour that do not facilitate the attainment of business goals (Smits, Van Woerkom & Van Engen, 2012). Various studies have positively correlated deficit correction with levels of work engagement (Metz, Burkhauser & Bowie, 2009; Salas et al., 2002). In addition, factors such as feelings of employability (implying that employees can remain attractive for current and future organisations) (Rothwell & Arnold, 2007) and

career advancement (because of improving their skills sets for current and future roles) (Benson, 2006) can contribute to increased levels of work engagement. Furthermore, as the work performance of employees improves (because of weaknesses being addressed), employees may experience well-being and subsequently increased levels of work engagement (Abdullah et al., 2009).

Research studies have also indicated that employees who are offered an environment that fosters growth and learning are likely to experience higher levels of work engagement (Bakker & Geurts, 2004), feel valued (Metz et al., 2009) and are motivated (Salas et al., 2002). The motivational role played by POS for deficit correction can be extrinsic and intrinsic in nature because it fosters learning and personal growth as well as assists in the achievement of tasks (Bakker & Demerouti, 2007). The intrinsic motivational nature of job resources is also in line with Deci and Ryan's self-determination theory (Deci & Ryan, 1985), which explains that job resources fulfil basic human needs, such as autonomy, competence and relatedness. Based on this reasoning, it is expected that POS for deficit correction will have a significant positive relationship with work engagement (*Hypothesis 1b*).

Relationships between perceived organisational support for strengths use and perceived organisational support for deficit correction and work engagement over time

Over the years, work engagement research has shown that the construct is stable, permanent and long lasting (Hakanen, Peeters & Perhoniemi, 2011; Schaufeli, Bakker & Van Rhenen, 2009). However, several studies have indicated that job resources are positively related to work engagement over time and, furthermore, discovered that there exists a reciprocal causal relationship present, where job resources predict work engagement, which in turn predicts job resources over time (Mauno, Kinnunch, Mäkikangas & Feldt, 2010; Simbula, Guglielmi & Schaufeli, 2011; Xanthopoulou et al., 2009).

In a study by Hakanen, Schaufeli and Ahola (2008), the authors found that the motivational process of the JD-R model was supported over a 3-year wave period. It was explicitly established that job resources predicted work engagement among Finnish dentists over time. In another study by Mauno, Kinnunen and Ruokolainen (2007), the longitudinal relationship between job resources and work engagement was confirmed among Finnish public workers in a 2-year period. Lastly, within the educational context, Llorens et al. (2007) found significant longitudinal relationships between job resources and work engagement among university students. De Lange, De Witte and Notelaers (2008) explained the underlying mechanisms between the constructs by making reference to the broaden-and-build theory of positive emotions (Fredrickson, 2001).

According to the broaden-and-build theory, positive emotions have the ability to broaden people's thought action

behavioural habits and build enduring personal resources that help them cope with and understand their environments better. It is through this process that individuals are able to transform and become more knowledgeable, creative and resilient, which can have a positive impact on their psychological and emotional well-being over time (Fredrickson, 1998, 2001, 2004). In line with the broaden-and-build theory, De Lange et al. (2008) argue that work engagement (which is a positive emotion) has the capacity to broaden one's thought action patterns and increase and/or build more job resources. Through this process, engaged employees can better mobilise their job resources, which might have an increase in their capability to regulate their emotions (De Lange et al., 2008; Hobfoll, 2001).

Based on the above studies and the inherent nature of POS for strengths use and POS for deficit correction as job resources and the inherent nature of work engagement as a positive emotion, it is therefore expected that there will be a significant and positive relationship over time between POS for strengths use and work engagement (*Hypothesis 2a*) and also a significant and positive relationship over time between POS for deficit correction and work engagement (*Hypothesis 2b*).

Research design
The research approach

A quantitative approach was followed by the researcher to conduct the study. To determine the relationship between POS for strengths use and POS for deficit correction over time, a longitudinal two-wave research design was utilised. Menard (2002) defines this research design approach as one where participant outcomes are collected at multiple follow-up times.

Research participants

A convenience sampling strategy within a mining organisation in South Africa was utilised. Geographically, participants were surveyed from across Gauteng, Limpopo and the Northern Cape provinces and consisted of employees on supervisory job levels and higher to ensure access to computers and the Internet in order to complete the online survey. An important requirement was that the participants have a good command of English and good literacy levels. The characteristics of the participants are presented in Table 1.

In total, 376 respondents completed the first wave, which resulted in a response rate of 47%. In the first wave, the total number of male respondents was 254 (67.55%) and that of female respondents was 122 (32.45%). This is representative of the male-dominated nature of the mining industry in South Africa. The sample was highly educated, where 48.41% of participants finished university degrees and/or a postgraduate degree.

TABLE 1: Characteristics of the participants.

Item	Category	Wave 1		Wave 2	
		Frequency	%	Frequency	%
Gender	Female	122	32.45	33	41.77
	Male	254	67.55	46	58.23
Ethnicity	Black	128	34.04	11	13.92
	White	201	53.46	58	73.42
	Mixed race	26	6.91	5	6.33
	Asian	17	4.52	5	6.33
	Other	7	1.86	0	0.00
Education	Grade 10	7	1.86	0	0.00
	Grade 11	2	0.53	0	0.00
	Grade 12	73	19.41	15	18.99
	Technical diploma	55	14.63	11	13.92
	Technicon diploma	54	14.36	11	13.92
	University degree (e.g. BA, BCom)	77	20.48	12	15.19
	Postgraduate degree (Honours, Masters)	105	27.93	30	37.97

The second wave of results resulted in a total common sample of 79 participants who completed the survey at wave 1 and wave 2 (response rate from wave 1 to wave 2 was 21.01%). Therefore, the 79 participants in the second wave are those participants whose unique individual identification codes from wave 1 matched with those of wave 2. The mean age of these 79 employees was 44.41 years (standard deviation [SD] = 9.35). In terms of gender, the total male respondents represented 58.23% of the population, while female respondents represented 41.77%. The percentage of employees who held a university degree and/or a postgraduate degree was 53.16%.

Research procedure

The questionnaire took approximately 30–45 min to complete. Participants were given a time period of 2 weeks to complete the questionnaires on both occasions. A reminder was sent electronically to remind the participants of the submission date. The hypotheses were tested in a two-wave longitudinal study with a time lag of 3 months. Data were collected by means of a web-based survey, with a link to the web-based survey sent to the participants via their work e-mail addresses. For the first wave the questionnaire was sent in July and data for the second wave were collected in October 2015 (3 months apart). Individual-level identification codes were used for the participants to ensure continuity in the second wave and to anonymously link the data from time 1 and time 2. The code design was as follows: *gender* (e.g. female)**,** *year of birth* (e.g. 1982)**,** *number of brothers* (e.g. 1)**,** *number of sisters* (e.g. 1) and *first initial of mother's name* (e.g. H for Helen) – an example is F198211H.

Measuring instruments

Biographical characteristics

Biographical characteristics such as year of birth, gender, ethnicity, education level, work experience, time in current role and work site were measured by means of a biographical questionnaire.

Perceived organisational support for strengths use and deficit correction

Perceived organisational support for strengths use and POS for deficit correction were measured using an adapted version of the SUDCO questionnaire developed by Van Woerkom et al. (2016). This is a tool that scores on a seven-point Likert-type frequency scale, ranging from 0 (almost never) to 6 (almost always). POS for strengths use was measured with five items (e.g. 'This organisation uses employees' strengths'). Van Woerkom et al. (2016) report a Cronbach's alpha coefficient of 0.96 for this dimension. POS for deficit correction, on the other hand, was measured with six items of which 'In this organisation, employees receive training to improve their weak points' is an example. The Cronbach's alpha coefficient for POS for deficit correction was reported as 0.93 (Van Woerkom et al., 2016).

Work engagement

Work engagement was measured by means of the Utrecht Work Engagement Scale (UWES-9) (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002). Work engagement was measured as a single latent variable based on the items of the three dimensions (vigour, dedication and absorption), totalling nine items. Three items measured vigour (e.g. 'At work, I feel like I am bursting with energy'). Dedication was also measured by means of three items: an example includes 'I am enthusiastic about my job'. Lastly, absorption was measured with three items (e.g. 'When I am working, I forget everything else around me'). Work engagement is measured on a seven-point Likert scale ranging from 0 (never) to 6 (everyday). Recent research within South Africa has confirmed work engagement as a one-factor structure, especially when using the UWES-9 (e.g. De Bruin & Henn, 2013; Smidt, De Beer, Brink & Leiter, 2016).

Statistical analysis

Time 1: Measurement model

Statistical analysis was conducted using Mplus 7.3 (Muthén & Muthén, 2015). To measure the degree of linear dependence between the variables, Pearson's product–moment correlation (*r*) was used. In addition, effect sizes to determine the practical significance were utilised. According to Cohen (1988), cut-off points of 0.30 (medium effect) and 0.50 (large effect) are used to determine the practical significance of the correlation coefficients. The confidence interval (CI) level for statistical significance was set at a value of 95% ($p \leq 0.05$).

Confirmatory factor analysis (CFA) was used to determine the factorial validity (Brown, 2015). To calculate the model's goodness of fit, the following fit indices were considered: comparative fit index (CFI), Tucker–Lewis index (TLI), root mean square error of approximation (RMSEA) and standardised root mean square residual (SRMR). Guidelines on the cut-off points values according to Lance, Butts and Michaels (2006) are as follows: CFI (between 0.90 and 0.99), TLI (between 0.90 and 0.99), RMSEA (between 0.01 and 0.08) and SRMR (between 0.01 and 0.08) (cf. Van de Schoot, Lugtig & Hox, 2012).

Time 2: Longitudinal evidence

Firstly, a measurement model was specified with CFA and maximum likelihood estimation based on the common sample at both points in time. The items were parameterised (labelled) in Mplus to indicate that these were the same items at both time points. This inherently assumes measurement invariance between the two time points between the items. For model fit, the following fit statistics were considered: CFI, TLI, RMSEA and SRMR.

Given an adequate measurement model according to the fit indices, the factor scores for this model were exported for further analysis with Bayesian estimation in a structural model. Factor scores lessen the number of parameters in the structural model and because of the scale of *missingness* at time 2 (*n* = 79; time 2; common sample). This was deemed necessary to establish longitudinal evidence. Moreover, Bayesian estimation has been shown to handle small samples quite well because of its iterative process (Kosowski, Naik & Teo, 2007; Scheines, Hoijtink & Boomsma, 1999). It was decided that evidence for longitudinal relationships between the variables would be considered with this estimation process, because maximum likelihood was unable to estimate this structural model accurately. Bayesian modelling allows for the use of priors specification in models (i.e. information about parameters from past studies or experts). Priors can be non-informative (diffuse) or informative (Muthén, 2010). For this estimation, informed priors were used to inform the final structural model, that is, the loadings and intercepts from time 1 were specified as prior information for the estimation at time 2 with a variance to this prior (see Table 2 for unstandardised loadings and intercepts used to inform the model at time 2).

Bayesian modelling does not present the same fit statistics as is normally expected (e.g. CFI) but models the need to satisfy convergence criterion in the iterative process. Specifically, 25 000 iterations were specified for this structural model, and for the convergence criterion, the potential scale reduction factor (PSR), the default value in Mplus at PSR < 1.05 was considered (Muthén, 2010). Furthermore, it is important to consider chain mixing in the Markov chain Monte Carlo (MCMC) chains specified. The default chains in Mplus are set to 2 (i.e. two separate processors for estimation). Basically, what this diagnostic entails is to visually inspect the chain mixing (see Figure 1) in the estimation process, that is, if the two chains at some point converge and provide similar estimates and continue doing so, then chain mixing has been achieved. The Kolmogorov–Smirnov test is a non-parametric test for chain mixing and indicates whether chain values are similar across each 100 iterations (for this test to pass, the *p*-value should be 0.05 or above; non-significant). Finally, regression results in Bayesian modelling are interpreted with higher propensity density and 95% credibility intervals, which are similar to 95% CI and should not also cross zero (the classic *p*-value is therefore not provided).

TABLE 2: Unstandardised and standardised loadings for the latent factors at time interval 1 (T1).

Factor	Item	Unstd. loading	Std. loading	SE	*p*	Intercept
Strengths use (T1)	SU1	1.00	0.79	0.03	0.001	3.69
	SU2	1.03	0.82	0.02	0.001	3.54
	SU3	1.13	0.86	0.02	0.001	3.67
	SU4	1.18	0.87	0.02	0.001	3.37
	SU5	1.17	0.87	0.02	0.001	3.26
Deficit correction (T1)	DI1	1.00	0.83	0.03	0.001	3.14
	DI2	1.08	0.90	0.02	0.001	3.24
	DI3	1.00	0.79	0.03	0.001	3.10
	DI4	1.01	0.82	0.03	0.001	3.18
	DI5	0.76	0.69	0.04	0.001	3.68
	DI6	0.89	0.75	0.03	0.001	3.00
Work engagement (T1)	VIG1	1.00	0.74	0.04	0.001	4.22
	VIG2	1.03	0.85	0.03	0.001	4.59
	VIG3	1.25	0.85	0.03	0.001	4.51
	DED2	1.14	0.91	0.02	0.001	4.86
	DED3	1.24	0.88	0.03	0.001	4.61
	DED4	0.94	0.83	0.03	0.001	5.26
	ABS3	0.89	0.78	0.04	0.001	5.02
	ABS4	0.95	0.80	0.04	0.001	4.87
	ABS5	0.76	0.53	0.06	0.001	4.34

SE, standard error; Unstd. loading, unstandardised loading; Std. loading, standardised loading.
All *p*-values < 0.001

Results
Dropout analysis

As latent variables could not be substantially created at the time 2, and that this was not a randomised control study which included an intervention, it was decided to conduct analysis on the time 1 variables. That is, whether the participants who completed at both times (*n* = 79) differed at time 1 with those who dropped out on their strengths use, deficit correction and work engagement as per Cohen's *d* effect size. Results showed that there were no practically significant latent mean differences. Values were as follows: strengths use (M: 0.00, SD: 1.00 [*n* = 79], M: -0.05, SD: 1.00 [*n* = 297] [Cohen's *d* = 0.05]); deficit correction (M: 0.00, SD: 1.00 [*n* = 79], M: 0.01, SD: 1.00 [*n* = 297] [Cohen's *d* = 0.01]); and work engagement (M: 0.00, SD: 1.00 [*n* = 79], M: -0.19, SD: 1.00 [*n* = 79] [Cohen's *d* = 0.19]). Analysis therefore continued.

Time 1 data: Measurement model

The results from the CFA revealed that the specified measurement model fits the data well. This is indicated by the fit indices as follows: CFI (0.94), TLI (0.93), RMSEA (0.06) and SRMR (0.04). The factors measured by the SUDCO were POS for strength use and POS for deficit improvement.

In Table 2, the factor loadings of the measurement model are presented. All of the items loaded significantly onto their respective factors (estimate > 0.60). However, item ABS5 (an absorption item) indicated a lower but acceptable loading of 0.53. The unstandardised loadings and intercepts are also presented, as they were used to inform the longitudinal model in the next section of the results.

The correlations from the SUDCO dimensions and work engagement to determine the relationship between the variables are presented in Table 3.

Correlations revealed that POS for strengths use and POS for deficit correction are practically and significantly correlated to each other with a large effect ($r = 0.83$). Strengths use was also correlated to work engagement to a large degree ($r = 0.62$). Similarly, deficit correction was practically and significantly correlated to work engagement with a large effect ($r = 0.53$). All relationships were in a positive direction.

Time 2 data: Longitudinal evidence

Factor scores model

The results of the model to obtain factor scores for the factors at time 1 and time 2 were an adequate fit to the data. Specifically, the following fit indices were shown: CFI (0.91),
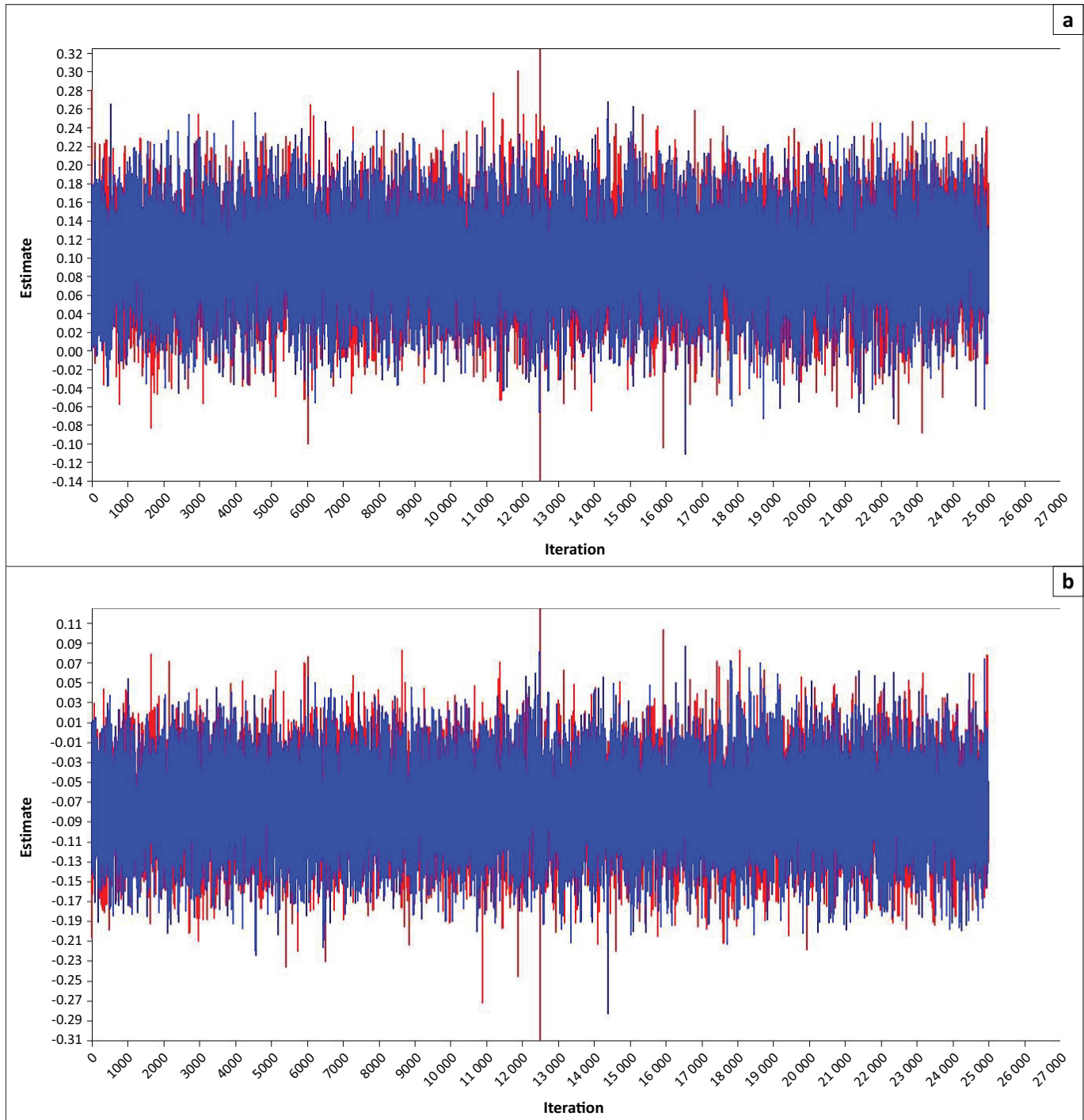
See Table 4 for results with 95% confidence interval.

FIGURE 1: Plots for chain convergence and parameter distributions. Parameters: (a) Perceived organisational support for deficit correction (T1) predicting engagement (T2) and (b) perceived organisational support for strengths use (T1) predicting engagement (T2). Kernel density plots: (c) Perceived organisational support for deficit correction (T1) predicting engagement (T2) and (d) perceived organisational support for strengths use (T1) predicting engagement (T2).
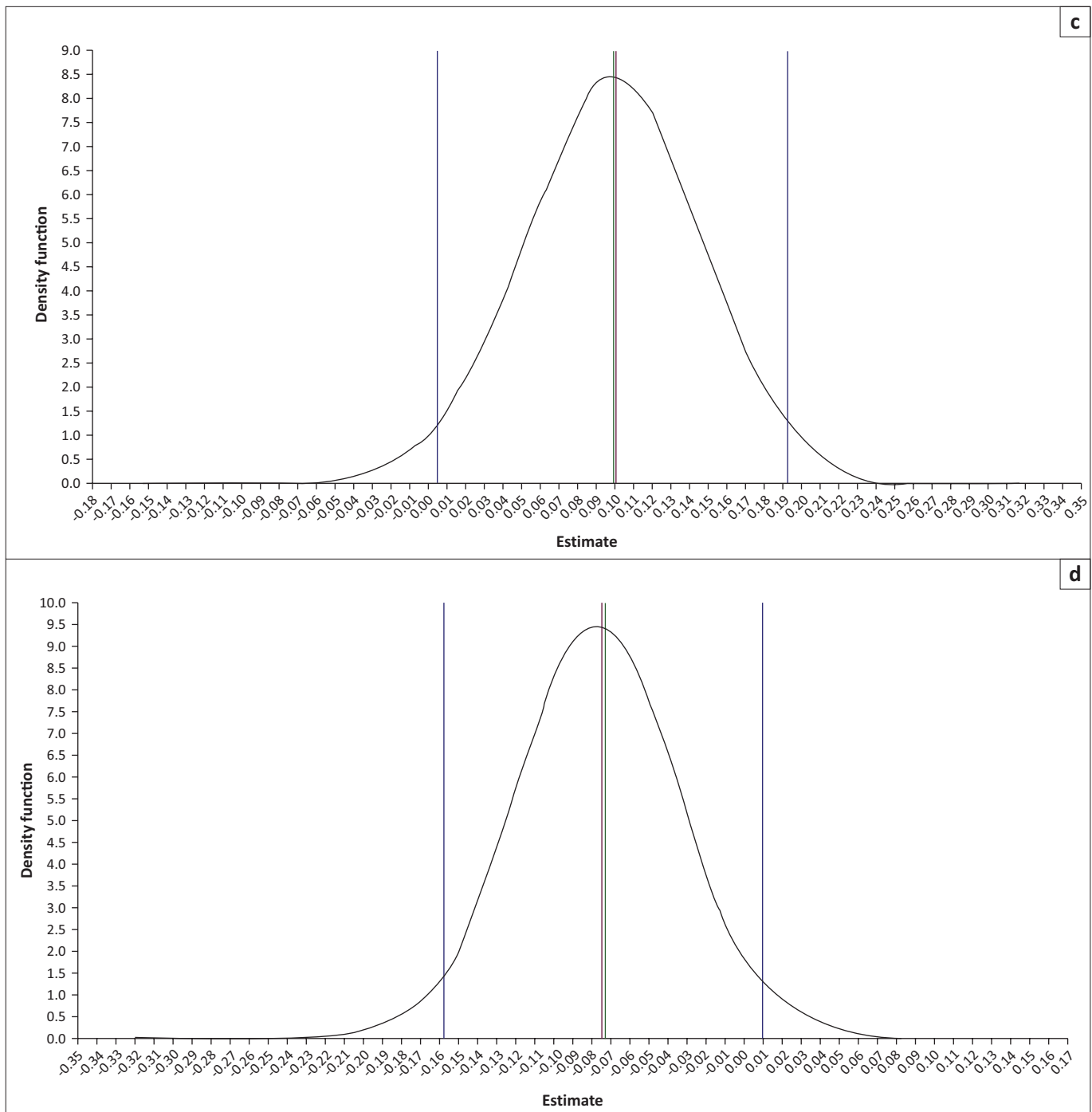
See Table 4 for results with 95% confidence interval.

FIGURE 1 (Continues...): Plots for chain convergence and parameter distributions. Parameters: (a) Perceived organisational support for deficit correction (T1) predicting engagement (T2) and (b) perceived organisational support for strengths use (T1) predicting engagement (T2). Kernel density plots: (c) Perceived organisational support for deficit correction (T1) predicting engagement (T2) and (d) perceived organisational support for strengths use (T1) predicting engagement (T2).

TLI (0.90), RMSEA (0.06) and SRMR (0.08). Based on the factor scores, the analysis continued with Bayesian estimation.

Convergence and chain mixing

After 25 000 iterations, the model was below a PSR value of 1.05. The Kolmogorov–Smirnov test also showed that there were no significant differences on any of the parameters between the chains, indicating convergence of the model with adequate mixing. Figure 1 presents visual evidence of

the parameter trace plots and distribution for the relationships of interest. As can be seen, sufficient chain mixing took place between the two chains by mixing adequately, and the distribution of the presented parameters is normal (smoothed). Given this evidence, interpretation of the results continued.

Factor loadings and correlations

The factor loadings for the model in the second test are indicated in Table 4.

TABLE 3: Correlation matrix for the latent variables.

Variables	1	2	3
1. Strengths use (T1)	(1)	-	-
2. Deficit correction (T1)	0.83	(1)	-
3. Work engagement (T1)	0.62	0.53	(1)

All correlations are statistically significant at $p < 0.001$.

TABLE 4: Standardised loadings for the latent factors at time interval 2 (T2).

Factor	Item	Estimate	SD	Lower 95% CI	Upper 95% CI
Strengths use (T1)	SU1	0.79	0.02	0.74	0.82
	SU2	0.82	0.02	0.78	0.86
	SU3	0.86	0.02	0.82	0.89
	SU4	0.87	0.02	0.83	0.90
	SU5	0.87	0.02	0.84	0.89
Deficit correction (T1)	DI1	0.84	0.02	0.80	0.87
	DI2	0.90	0.01	0.87	0.92
	DI3	0.79	0.02	0.75	0.83
	DI4	0.82	0.02	0.77	0.85
	DI5	0.67	0.03	0.61	0.73
	DI6	0.75	0.03	0.70	0.80
Strengths use (T2)	SU1	0.77	0.04	0.70	0.84
	SU2	0.82	0.04	0.73	0.87
	SU3	0.82	0.04	0.74	0.87
	SU4	0.81	0.04	0.74	0.88
	SU5	0.83	0.04	0.75	0.89
Deficit correction (T2)	DI1	0.90	0.03	0.84	0.94
	DI2	0.90	0.02	0.86	0.94
	DI3	0.82	0.04	0.74	0.88
	DI4	0.84	0.04	0.75	0.89
Deficit correction (T2)	DI5	0.69	0.04	0.60	0.77
	DI6	0.80	0.04	0.72	0.86
Work engagement (T1)	VIG1	0.75	0.03	0.70	0.79
	VIG2	0.85	0.02	0.81	0.88
	VIG3	0.85	0.02	0.82	0.88
	DED2	0.91	0.01	0.89	0.93
	DED3	0.89	0.01	0.85	0.91
	DED4	0.84	0.02	0.80	0.87
	ABS3	0.78	0.02	0.73	0.83
	ABS4	0.80	0.02	0.75	0.84
	ABS5	0.54	0.04	0.45	0.62
Work engagement (T2)	VIG1	0.88	0.03	0.81	0.92
	VIG2	0.86	0.03	0.80	0.91
	VIG3	0.93	0.02	0.88	0.96
	DED2	0.95	0.02	0.91	0.97
	DED3	0.89	0.03	0.83	0.93
	DED4	0.83	0.03	0.76	0.89
	ABS3	0.85	0.03	0.77	0.91
	ABS4	0.86	0.03	0.79	0.91
	ABS5	0.78	0.05	0.67	0.85

SD, posterior standard deviation; all values were acceptable, that is, did not cross zero.

As can be seen, all of the items had acceptable positive factor loadings on their respective factors, that is, all the loadings were above 0.50. The standard errors (SEs) for the loadings were also relatively small, indicating the accuracy of the estimation of the loadings.

As shown in Table 5, the results revealed that POS for strengths use and POS for deficit correction are practically and significantly correlated to each other to a large effect ($r = 0.83$; large effect). Similarly, strengths use and deficit improvement are positively correlated to work engagement to a large degree ($r = 0.61$; large effect), respectively.

TABLE 5: Correlation matrix for the latent variables at time 2.

Variables	1	2	3	4	5	6
1. POS for strengths use (T2)	1.00	-	-	-	-	-
2. POS for deficit correction (T2)	0.83	1.00	-	-	-	-
3. Work engagement (T2)	0.61	0.61	1.00	-	-	-
4. POS for strengths use (T1)	0.96	0.84	0.63	1.00	-	-
5. POS for deficit correction (T1)	0.84	0.95	0.56	0.84	1.00	-
6. Work engagement (T1)	0.61	0.55	0.94	0.66	0.56	1.00

All correlations are statistically significant at $p < 0.001$.
POS, perceived organisational support.

TABLE 6: Regression analysis.

Structural path	Estimate	Posterior SD	Lower 95% CI	Upper 95% CI	Sig.
Eng (T1) → POS for strengths use (T2)	0.13	0.03	0.08	0.18	*
POS for strengths use (T1) → POS for strengths use (T2)	0.87	0.02	0.84	0.90	*
Eng (T1) → POS for deficit correction (T2)	0.02	0.03	-0.03	0.07	-
POS for deficit correction (T1) → POS for deficit correction (T2)	0.94	0.01	0.90	0.96	*
Eng (T1) → Eng (T2)	0.94	0.02	0.89	0.98	*
POS for strengths use (T1) → Eng (T2)	-0.08	0.04	-0.16	0.01	-
POS for deficit correction (T1) → Eng (T2)	0.10	0.05	0.01	0.19	*

POS, perceived organisational support; SD, standard deviation; CI, confidence interval; sig*., statistical significance.

Regressions

Table 6 presents the regression results.

Table 6 provides the structural paths between work engagement at time 1 and POS for strengths use at time 2 ($\beta = 0.13$; SE = 0.03; 95% CI [0.08, 0.18]). It also provides insight into the relationship between POS for strengths use at time 1 and POS for strengths use at time 2 ($\beta = 0.87$; SE = 0.02; 95% CI [0.84, 0.90]). The regression analysis indicates that work engagement at time 1 and POS for strengths use at time 1 are predictors of POS for strengths use at time 2. Both of the structural regressions did not cross zero in the 95% confidence interval, indicating a trustworthy estimate value.

Also, the structural paths between work engagement at time 1 and POS for deficit correction at time 2 ($\beta = 0.02$; SE = 0.03; 95% CI [-0.03, 0.07]) are presented. It also provides insight into the relationship between POS for deficit correction at time 1 and POS for deficit correction at time 2 ($\beta = 0.94$; SE = 0.01; 95% CI [0.91, 0.96]). The regression analysis indicates that work engagement at time 1 is not a significant predictor of POS for deficit correction at time 2, as the 95% credibility interval for the estimate went through zero. However, the analysis confirmed that POS for deficit correction at time 1 was a significant predictor of POS for deficit correction at time 2.

The regression analysis further revealed that work engagement at time 1 is a predictor of work engagement at time 2 ($\beta = 0.94$; SE = 0.02; 95% CI [0.89, 0.98]). By the same token, POS for deficit correction at time 1 was a significant predictor of work engagement at time 2 ($\beta = 0.10$; SE = 0.05; 95% CI [0.01, 0.19]). However, POS for strengths use at time 1

did not predict work engagement at time 2 as the estimate crossed zero (β = -0.08; SE = 0.04; 95% CI [-0.16, 0.01]).

Ethical considerations

Consent from the mining organisation's management was sought and approved. A letter explaining the objective of the study and motivation was provided. Participation in the study was voluntary and the confidentiality of participants was emphasised.

As this was a research study, ethical considerations were taken into account. Reinforcing voluntary participation, informed consent, doing no harm and confidentiality were of primary importance to this study.

Discussion

This study sought to answer whether POS for strengths use and POS for deficit correction were significant predictors of work engagement over time. The study aimed at addressing the gap in the literature, as previous research on these constructs has been conducted from a cross-sectional perspective. A sample within the South African mining industry was surveyed in two waves which were 3 months apart.

The results revealed that both POS for strengths use and POS for deficit correction are positively related to work engagement. This supports and confirms hypotheses 1a and 1b, stating that a positive relationship exists between job resources (POS for strengths use and POS for deficit correction) and work engagement. This finding is in line with various studies that have confirmed a positive relationship between these constructs (Botha & Mostert, 2014; Harter et al., 2002; Linley & Harrington, 2006; Salas et al., 2012; Stander et al., 2014). The findings can further be substantiated by making reference to the JD-R model, where job resources were found to be the main predictors of work engagement. From an organisational perspective, it has been proven that POS for strengths use is another form of job resources. This is because of its inherent nature of providing an environment where employees can use their strengths, which in turn may result in them using their abilities and dedicating efforts to achieve tasks at work (Demerouti & Bakker, 2011; Van Woerkom et al., 2016). Similarly, POS for deficit correction is conceptualised as a job resource, because it can minimise or eliminate behaviour and/or skills that do not contribute to the attainment of business goals (Smits et al., 2012). In addition, HR practices in support of improving deficits develop employees as well as foster their growth. Schaufeli and Taris (2013) believe that work engagement is likely to be achieved when an employee continually invests physical and/or emotional effort to reach work objectives within the context of supportive organisational resources. Because POS for strengths use and POS for deficit correction have been conceptualised as such, it was expected that they will be positively related to work engagement.

The second hypothesis stated that POS for strengths use is a significant predictor of work engagement over time. Unexpectedly, the results established that POS for strengths use was not a significant predictor of work engagement over time; therefore, Hypothesis 2a was rejected. This finding is in contrast with longitudinal research conducted by Wood, Linley, Maltby, Kashdan and Hurling (2011), where the authors established that employees who utilised their strengths in work activities recorded higher levels of work engagement over time. Referencing the JD-R model, other studies also recorded significant positive longitudinal relationships between job resources and work engagement (Llorens et al., 2007; Mauno et al., 2007). As mentioned previously, the stability of work engagement could have played a role in the non-significant relations; however, studies with shorter follow-up time frames have recorded work engagement levels fluctuating (Bakker & Bal, 2010; Sonnentag, 2003; Sonnentag, Dormann & Demerouti, 2010), thereby nullifying the stability argument.

On the contrary, in a study conducted by Smits et al. (2012), the authors established in their preliminary analysis that the predictive power of strengths use on work engagement largely disappeared when placed in the same model with deficit improvement behaviour. Although a stepwise regression analysis was not adopted in this study, the findings by Smits et al. (2012) could potentially explain the reason for POS for strengths use not significantly predicting work engagement in time 2. Another explanation for the unexpected results can be obtained by understanding the organisational climate of the surveyed company. The mining industry and the population surveyed are made up of subject matter experts, who are professionals in their fields. Furthermore, the highly technological aspects of the industry require employees to stay abreast by remaining innovative and constantly coming up with new ways of mining faster and cheaper, yet maintaining safety standards. This expectation requires employees to dig deep within their professional expertise and to bridge the gap between the knowledge they currently have and what is required for future success. The surveyed organisation places a great deal of emphasis on the expert knowledge of their employees. Given the many challenges that the industry as a whole is facing, it requires the best talent to ensure sustainability and survival. It is probable that the levels of work engagement were not significantly altered, as the psychological climate within the organisation is such that employees equate building on their weaknesses as potential for future success, and therefore not showing strong levels of engagement when utilising their strengths.

In contrast, Hypothesis 2b (which stated that POS for deficit correction is a significant predictor of work engagement over time) was confirmed. This is congruent with longitudinal studies (previously mentioned) that purport that job resources predict work engagement over time. Practically, given that the employees are already in a climate that highly esteems a strength-based focus, it could be argued that employees feel that an organisation that

supports them in improving their weaknesses can help in the quest to achieve even better business goals, thereby possibly influencing a strong sense of work engagement. In studies conducted by Els et al. (2015) and Van Niekerk et al. (2016), deficit correction behaviour was found to predict higher levels of work engagement compared to strengths use behaviour. This has been attributed to individuals feeling valued and supported in rectifying their weaknesses. In addition, employees may feel challenged, fulfilled and may feel a sense of accomplishment when improving their weaknesses, thereby responding with motivation and commitment, leading to higher levels of engagement (Els et al., 2015; Tannenbaum, Mathieu, Salas & Cannon-Bowers, 1991; Van Niekerk et al., 2016).

The results further explained the relationship between the job resources (POS for strengths use and POS for deficit correction) and work engagement by observing the reversed causal relationship, which means looking at how work engagement at time 1 influences job resources at time 2. In the case of POS for strengths use, it was found that work engagement at time 1 indeed predicts POS for strengths use at time 2. This finding is in line with Llorens et al.'s (2007) study, where the normal, reciprocal and reversed influences of work engagement were investigated. It was found that work engagement at time 1 had a significant impact on job resources at time 2. This phenomenon was explained by De Beer, Pienaar and Rothmann (2013) who made reference to the motivational process of the JD-R model and introduced the concept of a 'perceptual hypothesis'. The authors reason that each individual has a perception of his or her job conditions, and that those conditions can change because of an increase in commitment or strain. Having said that, committed employees could view their working conditions more favourably because of the presence of job resources (De Beer et al., 2013), which explains the reason in this study where work engagement (committed employees) at time 1 predicts POS for strengths use at time 2.

Unexpectedly in this study, the reversed effect of work engagement on POS for deficit correction at time 2 was not significant. This finding illustrates an opposite effect to what previous studies have found regarding the reversed causal effects of work engagement on job resources (Bakker & Bal, 2010). However, the non-significance is to a small degree, and this finding could be sample specific.

Lastly, the relationship between job resources at time 1 and job resources at time 2 was significant. This practically means that POS for SUDCO at time 1 predicts POS for SUDCO at time 2. This finding can be explained by referencing the conservation of resources theory (Hobfoll, 2001), which states that individuals will try to maintain and foster resources that are valuable and important to them in attaining future goals (Salanova, Schaufeli, Xanthopoulou & Bakker, 2010). Furthermore, this theory makes assumptions about 'loss spirals' and 'gain spirals' where resources may either diminish or increase (Hobfoll, 2001). The latter, which helps explain the findings in this study, elaborates that the gaining

of (job) resources has the potential to increase more resources, making it more likely to seek and acquire additional (job) resources (Llorens et al., 2007). Simply stated, it is probable for employees to acquire and seek more job resources in the future, once they are in the possession of current job resources.

Practical implications

The aim of the study was to determine the longitudinal relationship between an organisational environment that supports the use of strengths as well as the correction of weaknesses and how those affect work engagement. Given the South African landscape and the emphasis on the training and development of employees, it is important for organisations to understand which approach has the best long-term benefits on the bottom line. Through this study, it has been determined that an environment that supports the correction of deficits influences employees' levels of work engagement in the longer term. Given this, it is therefore justified for organisations to invest money (long term) in development interventions, such as succession planning, as it has been established that work engagement has direct impact on organisational bottom lines (Bakker et al., 2011; George, 2010).

Furthermore, the results indicated that POS for strengths use is positively related to work engagement in the shorter term together with POS for deficit correction. It is therefore advisable for organisations to focus on both employee SUDCO when development in the short term is required. For example, development to assist an employee to excel in a current role could be addressed by utilising both a strengths use approach and a deficit correction approach. Furthermore, development interventions that are short term and time constrained, such as coaching, could also benefit from following both a strengths-based and a deficit correction approach.

From an employee perspective, it is important for employees to have the right tools to navigate this complex and changing world of work. Having the knowledge of how to better develop themselves may have a positive impact on employees' performance and career progression. It has been established that employees who are engaged have better in-role performance (Schaufeli et al., 2006) and that having the opportunity to address their weaknesses can lead to career advancement (Benson, 2006) and remaining relevant and marketable in their fields (Rothwell & Arnold, 2007).

In terms of the field of industrial psychology, research on these forms of job resources and their relation to work engagement from a longitudinal perspective is lacking. This study aimed at addressing that gap by focusing it within the South African context.

Limitations and recommendations

In this study, valuable findings were concluded on the antecedents of work engagement within the South African

mining industry over time. However, this research study is not without limitations. Firstly, a longitudinal approach was undertaken to explore causal relationships between the constructs. However, it has been recorded that both strengths use and work engagement are stable phenomena (Hakanen et al., 2011; Mauno et al., 2007; Schaufeli et al., 2009; Van Woerkom et al., 2015) and therefore utilising research designs with a shorter time frame, such as weekly diaries, could better explain variations and differences in the levels of the constructs (Bakker & Bal, 2010; Fritz & Sonnentag, 2007).

Secondly, the study has limitation with regard to the compilation of the sample. It consisted of individuals at various levels and departments within a single large organisation in the mining industry. The results therefore cannot be generalised to all organisations within the South African context and caution should be taken when making any generalisations. It is therefore recommended that a more diverse sample, such as a multi-industry group, be utilised for future research. In addition, the study made use of convenience sampling. The sample was taken from the South African mining industry, where the majority of respondents constituted white male population. Based on this homogeneous population, generalisations cannot be made, as the sample does not reflect the diversity, that is, the South African population. It is suggested that future research should make use of a probability sampling strategy to enhance the generalisability of the research results.

Thirdly, the sample size indicating the longitudinal evidence was very small. Generally, larger sample sizes increase the probability of obtaining significance because they reflect the population mean more reliably (Boyd, Briggs, Fenwick, Norrie & Stock, 2011). Generalisations can therefore not be made with respect to the findings of this study. It is therefore suggested that future research should collect data from a larger sample size to overcome this limitation.

Lastly, the study utilised self-report questionnaires in the collection of data. Spector (1994) has criticised this approach as it increases measurement bias. Furthermore, when people respond to self-report questionnaires, there is a possibility of social desirability occurring. This simply means that respondents may present themselves in a positive image when responding to the questionnaire (Johnson & Fendrich, 2005). In this study, the constructs being measured were of a subjective nature, thereby restricting the manner in which this problem could be addressed (Salkind, 2009).

Conclusion

In this study, it was found that employees who believe that an organisation that supports them to correct their deficits will experience higher levels of work engagement over time. Furthermore, the study established that in the short term, an environment that supports the use of strengths will yield higher levels of engagement. The long-term effect of POS for strengths use on employees' work engagement was not established in this study, but it is suggested that future

research should further investigate this causal relationship. The sample in this study included employees within the mining industry of South Africa. This study provides much needed clarity on the debate as to which approach (strengths-based or deficit correction approach) has a positive impact on work engagement over time. It is therefore recommended that organisations should invest in development interventions which help their employees correct their weaknesses for long-term benefits, and that an environment that supports the use for strengths is beneficial in the short term.

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The relationship between personality types and leisure time activities amongst Casino employees' workplace expectations

Authors:
Rosa Naude[1]
Stefan Kruger[1]
Leon T. de Beer[2]
Melville Saayman[1]
Cara Jonker[3]

Affiliations:
[1]Tourism Research in Economic Environs and Society, North-West University, South Africa

[2]WorkWell Research Unit, North-West University, Potchefstroom Campus, South Africa

[3]School for Human Resources Management, North-West University, South Africa

Corresponding author:
Stefan Kruger,
stefan.kruger@nwu.ac.za

Orientation: Associations between a person's character strengths, happiness and well-being can be explained with the overlap that they have with personality. Casino employees' working hours were and are increasing, which means that their leisure time is decreasing concomitantly, with only 20 hours per week being used in pursuit of leisure activities.

Research purpose: The primary purpose of this research was to investigate 1502 casino employees' personality types and the relationship it has on their leisure life and overall happiness.

Motivation for the study: The importance of leisure participation and time to take part in leisure activities, and the effect it has on casino employees' happiness in the workplace, warrants further investigation. If human resources managers and general management want happier casino employees in the workplace, they should focus on their personality types and make more leisure activities available to them; which will result in a happier workforce.

Research design, approach and method: The target population consisted of 3032 casino employees, who received the questionnaires and were given the opportunity to complete the questionnaires anonymously. An availability sampling technique was used, based on the number of casino employees who were willing and available to complete the questionnaires.

Main findings and practical/managerial implications: In terms of the structural equation modelling, it was found that the positive personalities such as extraversion and openness to experience correlated well with leisure life and happiness. In this study, the standardised regression weights showed that if an individual has a negative personality, he or she will not necessarily be unhappy. A positive relationship was found between positive personality traits such as cooperativeness and agreeableness and leisure life and happiness. Considering mediation effects, leisure preference was the greatest partial mediator between happiness and personalities.

Contribution: Human resource managers of casino establishments can use these results to determine the type of personality of casino employees that will experience a good leisure life and happiness in relation to the workplace, contributing to positive psychology and human resource literature.

Introduction

Szeliga (2009) and Wong, Gardiner, Lang and Coulon (2008) state that individuals can be categorised in many ways, for example their height, weight, gender, age, generation and education levels and, very importantly, their personality. Based on these typical categorisations, decisions regarding promotions, selection and training can be made. Another way in which people can be categorised is by means of different personality types. Personality variables of people may include interpersonal and communication skills, self-control, self-efficacy, initiative, autonomy, responsibility, emotional stability, resilience and integrity (Bergh, 2009). In essence, this research should therefore be able to facilitate the best fit between an employee, his or her behaviour and the relevant working environment (Bergh, 2009; Wong *et al.*, 2008).

Bergh (2009) and Wong *et al.* (2008) confirm that personality is arguably one of the most important disciplines that should be considered during the study of human nature and individual differences and similarities, as employees bring their personalities to the work place and these personalities determine the way in which they behave. A personality of conscientiousness, for example, is a consistent predictor of work performance across various jobs; extraversion is related to job factors

such as social interaction and being proficient in training; and autonomy is an intervening variable (Bergh, 2009). There is a 'big five factor' that describes five main personality types that can be extended to 10 personality types (Bergh, 2009; Goldberg, 1990; Kalshoven, Hartog & De Hoog, 2011). For the purpose of this article, the authors have focused on the extended 10 personality types, known as the Ten-Item Personality Inventory (TIPI), that are typically the big five with their opposites, also known as positively and negatively keyed TIPI items (Gosling, Rentfrow & Sann, 2003; Keyes, Kendler, Myers & Martin, 2015).

Recognising the importance of personalities, the studies of Lu and Hu (2005) and Stephan, Boiché, Canada and Terracciano (2014) found that a possible relationship exists between leisure life, quality of work life domain and an individual's personality. Lu and Argyle (1994) found that personality differences lead to different kinds of leisure being chosen. Cooperative individuals normally choose clubs, whereas neurotic people like hobbies rather than sports. Wan and Chan (2013) found during their research that casino employees have a desire for more leisure time during their work shifts to be able to concentrate for long periods of times, which reflects the demand and intensity of their jobs. Wagner et al. (2014) mentioned that various studies have already found that different ways of spending one's leisure time affect your psychological and subjective well-being. Lu and Argyle concluded that leisure satisfaction correlates with happiness and that the social aspects of leisure satisfaction predict happiness in the long run.

Lucas and Diener (2009) and Pishva, Ghalehban, Mordai and Hoseini (2011) ascertained that basic personality structures determine the tendency to be happy or unhappy. Pishva et al. state that neuroticism and psychoticism would typically be negatively associated with happiness, while extraversion is positively related to happiness. A survey that was conducted by Lucas and Diener found that personality characteristics are more highly correlated with happiness than any correlations with demographic predictors or major life circumstances; they argue that a theory of well-being that fails to incorporate personality characteristics would be incomplete. Warr (2007) found that higher scores on neuroticism as a personality type among individuals reported more unhappiness. A person's personality could, therefore, possibly have an effect on his or her happiness in the work environment (Lauriola & Iani, 2015; Warr, 2007; Zeng, Forrest & McHale, 2012). Bonab (2014) supports this comment with his finding that personal values, individuals' tendencies and one's personality have a significant effect on happiness. Blackshaw (2010) has also highlighted the fact that the point of working is not just to have a job, but that it should be a job that is exciting, stimulating, challenging and that makes one happy.

The study of Veenhoven (2011) postulates that there is currently a gap in academic literature that is related to happiness; for this reason, a great deal of research is currently taking place in order to understand why some people are happier than others and also to find ways in which to make people happier. Wagner et al. (2014) also mentioned that knowledge of the way in which one could achieve happiness and the outcomes that this will have in the different life domains such as family and leisure will contribute significantly to the body of research of people's well-being. Wan and Chan (2013) commented that in our ever-changing and fast-paced society, determining what makes employees feel satisfied about their working life is vital for human relations practitioners. Employee and organisational well-being should be the main aim in industrial and organisational psychology, so that one would be able to ensure that the best work performance and business outcomes (such as productivity and improved profits) could be achieved (May, 2009). Szeliga (2009) noted that a gap to be filled in future research is to obtain a proper understanding of the personality of employees so that productivity and profitability are maximised and employee turnover minimised by understanding the employees better. Bergh (2009) also mentioned a gap in research in studying the relationship of the big five personality factors with regard to job performance, job satisfaction, occupational choice, positive and negative affect and teamwork. Taking the literature into consideration, the authors will aim to determine whether casino employees' personalities have an influence on their leisure life and the happiness that they experience. The outcome could make human resources managers of casinos aware of the type of employees that would be happier and enjoy a good leisure life; it could also give these managers a better understanding of their employees and why some of them react happier than others.

Based on the introduction, Figure 1 depicts the linear relationship between positive and negative personalities in relation to leisure life and happiness of casino employees in the workplace. This relationship and model fit are discussed further in the empirical results and findings section.

Literature review
Casino employees but still

Being a casino employee also implicates just-in-time service delivery, which means that the employee has to respond promptly in situations of great pressure (Wan & Chan, 2013),
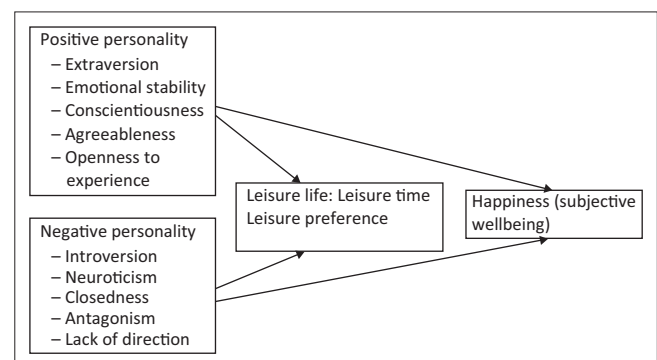

FIGURE 1: The structural relationship between the key concepts, that is, personality types, leisure life and happiness, without the measuring model.

and has to deliver quality service (Liu, 2005). Zhao, Qu and Liu (2014b) mentioned that the hospitality industry requires employees to work odd hours, including weekends and holidays, and thus requires that they sacrifice leisure time that is necessary to fulfil their family responsibilities. Casino employees also have constant face-to-face contact with guests; many times, this contact is in conflict situations because of customers who are intoxicated or angry over gambling losses (Tiyce, Hing, Cairncross & Breen, 2013; Wan & Chan, 2013), leading to great pressure to respond to customers quickly. Bradley, McColl-Kennedy, Sparks, Jimmieson and Zapf (2010) mentioned that it is also expected employees to regulate their emotions during all service encounters. Prentice (2013) found that the casino service environment is the only factor that impacts players' propensity to switch, and food service and empathy from table dealers will affect player retention. Tiyce *et al*. (2013) listed demanding work roles, emotional labour, lack of control, ethical concerns and supercharged environments as additional stressors for casino employees. On top of that, Wan and Chan (2013) mentioned that there is also the added stress of management constantly watching the employees, as they are on the lookout for cheating dealers and players.

In a casino, slots and tables are the main revenue generators and therefore need to be manned by knowledgeable, productive employees (Lee, Back & Chan, 2015; Liu, 2005). Kilby, Fox and Lucas (2005) mentioned that within the tables department, the payroll of casino employees represents 25% to 50% of the winnings and the biggest expense of tables' expenses, proving the great importance of casino employees. Prentice (2013) remarked that the days are gone that casino management can just assume that players will return to a casino unconditionally. Compared to the general workforce, casino employees are at a greater risk of various health problems because of their constant exposure and familiarity with, as well as ready access to and knowledge of gambling, alcohol and tobacco (Shaffer, Vander Bilt & Hall, 1999). Delivering quality service in a casino is the effective relationship marketing tool to attract customers and maintain their loyalty (Back & Lee, 2015; Prentice, 2013). Zhao *et al.* (2014b) remarked that hospitality (casino) employees have a desire to relax or take part in social events because of their stressful work.

Personality

Bergh (2009) and Crooker, Faye and Tabak (2002) define 'personality' as a profile of interactions between the characteristics or traits of a person and the way in which he or she responds to the complexity and dynamism in life. A person's personality is more or less enduring and involves stable characteristics, predispositions, and patterns of thinking, feeling and acting across time and situations. These traits organise and direct a person's, behaviour and, at the end of the day, provide the person with fairly identifiable personality profiles (Bergh, 2009; Friedman & Kern, 2014). Bergh (2009) stated that personality might be seen as those attributes that fit the demands of the working environment. Previous research has already indicated that overall career success and happiness are aided by personality factors such as being optimistic, serious-minded, energetic, content, open, spontaneous, self-confident, self-sufficient and ambitious (Bergh, 2009). Crooker *et al*. (2002) found that different personalities are able to cope with uncertainty differently; this ability to cope determines their work-life-balance experiences as well as individual outcomes such as stress levels, and organisational outcomes such as working behaviours. These should then be coupled with the ability to be free from negative feelings, hostility, aggression, anxiety, irritability, unhappiness and dissatisfaction (Bergh, 2009).

Noftle, Schnitker and Robins (2011) and Bergh (2009) explained that the big five personality model is the approach that the majority of researchers use when they study personalities and that this approach enjoys wide acceptance. Bergh is of the opinion that with the model of the big five personalities, the traits have been proven to have a construct and predictive validity; the model has good theoretical descriptions as well as various trait descriptions. The big five personality model represents a new and integrated way of describing, assessing and studying people's personalities and the relationship that they may have with various other contexts such as the workplace (Bergh, 2009). The model is a hierarchical taxonomy of traits, attempting to organise all the ways in which people may differ from each other (Noftle *et al*., 2011). The big five personalities are displayed in Table 1 (Jani, 2014; Noftle *et al*., 2011; Pervin & John, as cited by Bergh, 2009; Warr, 2007). As can be seen in Table 1, each of the

TABLE 1: Traits and descriptions of the 10 personality types.

Personality traits	Description
Neuroticism†	Anxious, depressed, hostility, moodiness
Extraversion‡	Sociability, friendliness, gregariousness, talkativeness, assertiveness, social potency, energy, optimism and influence on others
Openness to experience‡	Artistic orientation showing sensitivity towards aesthetic and cultural issues, creative, reflective or a more general intellectual emphasis on conceptual and abstract topics
Agreeableness‡	Cooperativeness, modesty, trustworthiness, sympathy towards others, kind, altruistic and showing consideration towards people's wishes
Conscientiousness‡	Tends to initiate action to achieve orientation, proactive, striving, organised, responsible, industrious, determined to attain goals, playful, self-disciplined, concerned about order and accepting routines and authority
Emotional stability‡	Calm, even-tempered, relaxed, contented, unemotional, stable and imperturbable
Introversion†	Silent, unadventurous, timid, unenergetic, unassertive
Closedness†	Uncreative, uninquisitive, unreflective, unsophisticated and unimaginative
Antagonism†	Stingy, unkind, selfish, distrustful and unhelpful
Lack of direction†	Impractical, lazy, disorganised, irresponsible and careless

Source: Adapted from studies done by Gosling *et al*., 2003; Judge *et al.,* 2002; McAdams, 2006; Noftle *et al*., 2011; Pervin & John, as cited by Bergh, 2009; Szeliga, 2009; and Warr, 2007
†, Negative personality traits; ‡, Positive personality traits.

five factors in the first column is described by their specific traits. The five personalities in column one are known as the big five personalities. According to Bergh, all five of these factors have roots in conceptual psychology theory, including the subtraits that have been scrutinised and are seen as true descriptions of the factors. The personalities in column two are the opposites of the big five factors in column one as listed by Gosling *et al*. (2003) in the 10-item personality inventory, also known as positively and negatively keyed TIPI items. Gosling *et al.* mentioned that this 10-item measure will typically be used when personality is not the primary topic of interest or when the research can tolerate a somewhat diminished psychometric property that is associated with the brief measures. The positive and negative personality types will be indicated with either a plus (+) or minus (–) symbol to indicate whether they fall in the positive or negative personality grouping. This grouping does in no way mean that a negative personality type is bad; it merely classifies the traits that are generally observed as either being positive or negative. McAdams (2006) listed the big five personalities in his book with the five basic dispositional traits, indicating the positive and negative personality sides of the big five.

McCrae (2011) stated that researchers should be cautious when linking personality with work, as personality traits are not the sole determinants of well-being and that various other factors (e.g. income, life cycle and work-life balance) could also have an impact on happiness. On the other hand, McCrae (2011) and Bergh (2009) noticed that personality traits are reasonably stable; they might change, as they are dynamic, but the change will be gradual and not sudden. An example of this is that as individual's age, they find life less exciting, but more satisfying (McCrae, 2011). This is further good news for employers, because the most suited employees should be selected based on the enthusiasm, gratitude, bravery, initiative and responsibility that they showed in an interview, as this will hopefully continue in the workplace (May, 2009; McCrae, 2011). McCrae (2011) argues that it is also a good suggestion for employers to look out for 'positive' personality traits, also known as 'moral' traits, in potential employees. Examples of these necessary traits are that leaders in the work place need to be assertive; clinicians need to show empathy and hostage negotiators need to be emotionally stable. McCrae (2011) also found that the active expression of agreeableness and conscientiousness raises levels of well-being and happiness. In the past, much more attention was paid to 'negative' traits such as anxiety and aggression (McCrae, 2011). Whatever role or relationship people encounter, they bring their traits with them and a good understanding of their strengths may therefore help to optimise their fit. Bonab (2014) and Noftle *et al*. (2011) stated that it is possible that the associations between a person's character strengths, happiness and well-being can be explained with the overlap that they have with personality. Allen and Laborde (2014) added that personality can also influence the amount of time that is spent on leisure activities, as well as the type of leisure activities.

Leisure life

Lu and Hu (2005) made the obvious statement that most people find leisure life more satisfying than their work; it is also a major source of pleasure and sense of achievement among people. Leisure life can include activities such as combative, creative and competitive leisure activities (Lu & Hu, 2005). There are also social events such as sports, parties and clubs, as well as solitary events such as reading and watching television (Lu & Hu, 2005). During this study, leisure life has been divided into two areas, namely leisure time and leisure preference that, when combined, make up one's leisure life.

Gavin and Mason (2004) mentioned that casino employees' working hours are increasing, which means that their leisure time is decreasing concomitantly, with only 20 hours per week being used in pursuit of leisure activities. Wan and Chan (2013) also found that (especially) croupiers desire more resting time during their working shifts because of their demanding and intense jobs in which they must maintain high levels of concentration for long periods of time. Ryan and Glendon (1998), as cited by Zhao *et al*. (2014b), listed the following two distinct intentions of leisure. The first intention is relaxation; Lu and Argyle (1994) explained that it implies to escape from the daily pressures of life, find a calm and peaceful place, relieve depression, reduce anxiety, benefit one's physical health by recovering from tiredness, release mental stress and refresh one's energy. The second intention is social, which is explained by Lu and Argyle (1994) as corresponding by building and maintaining companionship, friendship and feelings of belonging. Blackshaw (2010) summarised all these in three simple phrases: Leisure should give pleasure, fill one's desire and make one happy.

Consider the study that was conducted by Lu and Hu (2005); they found that extraverts acquire greater leisure satisfaction, whereas neurotic people enjoy leisure less. They also found that leisure satisfaction is related to happiness when the effects of personality traits and the positive and negative affect in relation to life domains are taken into account. Blackshaw (2010) listed the big seven leisure pursuits, namely gambling, sex, alcohol, television, taking drugs, shopping and annual holidays. Gavin and Mason (2004) argued that stress is often experienced at work, but that it does not stop at work, it spills over into the rest of the employees' lives such as family life, social life, leisure life and the self. Hon, Chan and Lu (2013) found that service employees in the hospitality industry who feel under pressure at work are in essence dissatisfied with the status quo. In a survey of British employees, Gavin and Mason found that 8 million employees complained that work-related pressure gave them headaches and 12 million stated that, because of their workday experiences, they get bad tempered and irritable when they are at home. Hon *et al*. made the comment that stress is very common in the hospitality industry, but that the advantage of this stress is that it provides a powerful impetus for change to happen in the organisation by coming up with creative ideas

for improvement. Qian, Yarnal and Almeida (2014) found that high daily stress will prompt an individual to allocate more time to leisure than normal which, in turn, will have a positive affect and thus remedy the damage that has been done by high daily stress. Qian *et al*. (2014) also confirmed that both mental and physical health improve by means of leisure participation.

Lu and Argyle (1994) found that a person's gender, age and job status do not have an effect on having a committed leisure life. It does have an effect on the type of leisure activities one will take part in, though; younger people, cooperative people and those with a high self-esteem opted for voluntary work, joining clubs and taking part in sports rather than engaging in hobbies, art, educational activities or craftwork (Lu & Argyle, 1994). Lu and Hu (2005), as well as Steel and Ones (2000), found that extraverted people engage in more leisure activities and also derive greater satisfaction from them, which leads to a higher amount of happiness in the end. It was also confirmed that neurotic people do not have an obvious preference for leisure, as they derive less satisfaction from their leisure life; in the end, this contributes to the suppression of their level of happiness. Malkina-Pykh and Pykh (2014) found that there are definite connections between leisure and trip experiences, one's satisfaction with life domains and the overall satisfaction with one's life. Furthermore, they found that vacationing has definite positive effects on perceived quality of life and overall happiness experienced. Lu and Argyle confirmed that leisure is a definite source of happiness even more important than health or income.

Happiness

'Happiness' is described by Selezneva (2010) and Malkina-Pykh and Pykh (2014) as the individual's judgement of the overall quality of his or her own life as a whole. Keyes *et al.* (2003) define happiness as spontaneous reflections of one's pleasant and unpleasant feelings that one experiences immediately, while life satisfaction is the long-term assessment of one's life. Warr (2007) attested in his book to the different reasons why people are happy at work. Reasons that were mentioned include the employees' job titles, job features or contents and lastly, the employees themselves, their characteristics and mental processes (Warr, 2007). Bonab (2014) explained that, according to certain emotion theories, happiness is one of the big six emotions, namely wonder, fear, anger, happiness, hate and worry, that people experience.

Warr (2007) found that happiness can be determined by two philosophical distinctions. Firstly a person can experience subjective happiness (experienced by a person him- or herself), also known as subjective well-being. According to Warr, subjective forms of high or low levels of happiness are determined by the experience of pleasure or pain. Hedonism theories explain the preponderance of positive feelings over negative feelings; terms such as delight, elation, joy, contentment and satisfaction are part of hedonistic perspectives. Secondly, happiness is independent of the person, for example the sense

that one is using one's attributes well, that one is fulfilling oneself and that one means something. Themes that support this form of happiness include a sense of wholeness, self-realisation and fulfilment, being authentic and true to oneself, and finally, being morally desirable (Warr, 2007) – these are all forms of the self-validation of happiness. This form of happiness is not always accompanied by the experience of pleasure (Warr, 2007) and may even be accompanied by some form of pain. Robinson and Tamir (2011) also found that happier people are more productive and engaged at the workplace. Based on the literature review the following hypotheses will be tested:

- **Hypotheses 1a (H1a):** Positive personality will have a positive relationship with leisure life.
- **Hypotheses 1b (H1b):** Positive personality will have a positive relationship with happiness.
- **Hypotheses 2a (H2a):** Negative personality will have a negative relationship with leisure life.
- **Hypotheses 2b (H2b):** Negative personality will have a negative relationship with happiness.
- **Hypotheses 3 (H3):** Leisure life will have a positive relationship with happiness.
- **Hypotheses 4 (H4):** Leisure life mediates the relationship between positive personality and happiness.
- **Hypotheses 5 (H5):** Leisure life mediates the relationship between negative personality and happiness.

Methodology
Sampling method

The target population of this study was casino employees, namely slots employees (management included), tables employees (management included) and cashiering employees (management included) of a selected, well known casino and resort group in South Africa. A proposal was sent to the human resources director of the casino group. The director gave the researcher permission to continue with the study at the casino units. All units were informed of the planned study and the way in which the entire process would take place; units were also requested to make themselves available for the study. Questionnaires were mailed to all the slots, tables and cashiering managers of the various units and a due date was set for the questionnaires to reach the researcher. Surveys were completed at 12 units (out of 13 units) of the group through mail correspondence, indicating their willingness to participate in the survey. Based on the number of casino employees who were employed in the group, 3032 questionnaires were mailed to the various units and 1502 fully completed questionnaires were received back (a 49.5% response rate). Other employees, who did not respond, could have been on their days off, sick leave or annual leave; they could also have been unwilling to fill in the questionnaire. According to Israel (2009), for a target population of 4000 people, a sample size of 870 is sufficient to provide a ±3% precision with a 95% confidence level.

Measuring instrument

The questionnaire consisted of three sections: Section A covered the 10 different personality types that can be represented by

the casino employees (Table 3). These 10 personality types were derived from a combination of the big five personality types as studied by Goldberg (1990) and Judge, Heller and Mount (2002), as well as from the expansion of the five-factor model to a ten-item personality inventory (TIPI) by Gosling *et al*. (2003). Section B included the leisure questions that form part of a QWL domain, investigating employees' leisure life with questions regarding their leisure time and leisure preference (Table 3). Section C contained nine questions regarding the casino employees' happiness at work. These questions about their happiness were based on the questionnaire of the happiness-at-work-index survey (Table 3) that was developed by Chiumento (2007). Sections B and C consisted of a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). This is in line with the suggestion of Allen and Seaman (2007) that there should be at least five response categories in a Likert scale in order to ensure reliability.

Data capturing and statistical analysis

The data was captured in *SPSS Statistics for Windows* (version 22.0) (IBM Corp, 2013). Mplus 7.1 (Muthén & Muthén, 2012) was used to perform the confirmatory factor analyses (CFAs), correlations, and regression analyses. Brown and Moore (2012) stated that a CFA also forms part of structural equation modelling (SEM) in the way that it looks at the measurement models by determining the relationship between observed measures (indicators) and latent variables, also known as factors. The goal of a CFA is to determine the specific number of factors among a set of indicators; this is a very important step in the process before one can continue with the structural part of the SEM (Brown & Moore, 2012). To consider the fit of the CFA model, the researcher investigated the chi-square value, degrees of freedom, comparative fit index (CFI), Tucker-Lewis index (TLI) and root mean square error of approximation (RMSEA) (Hooper, Coughlan & Mullen, 2008). Flora and Curran (2004) mentioned that higher factor loading values will indicate greater factor determinacy, proving the factor to be valid.

For the fit of the CFA, the factor loadings need to have a *p*-value ≤ 0.05 to be statistically significant (Pallant, 2005). Hooper *et al*. (2008) and Barret (2007) mentioned that the model chi square $(X^2)/df$ is the traditional way to determine the model fit. According to Hooper *et al*., no agreement has been reached as to what the acceptable ration for this statistic should be and it is therefore accepted to be in a range of between 5.0 (according to Wheaton, as cited by Hooper *et al*., 2008) and 2.0 (according to Tabachnick & Fidell, as cited by Hooper *et al*., 2008). Looking at the CFI and TLI, values of ≥ 0.90 are suggested and for the RMSEA, a value of ≤ 0.08 is suggested (Van de Schoot, Lugtig & Hox, 2012). With regard to Spearman's rank correlation, Zar (2015) described the correlation as a study of the relationship between two variables, assuming that neither of them is dependent upon each other. We will be using the guidelines of Cohen (1988) for the correlations of a small effect, ranging from between 0.10 and 0.29, which is not practically significant; a medium

effect, ranging from between 0.30 and 0.49, which has a practical visible difference; and a large effect ≥ 0.50, which also has a practically significant difference. Weston and Gore (2006) mentioned that regressions indicate relationships among the latent variables that have been established in the CFA, with the strength of the relationships being indicated by the standardised regression weights. Yet again, it will be important for the *p*-value to be ≤ 0.05 to be statistically significant.

Empirical results

With respect to Schmitt (1996), in some cases, a low reliability result of between 0.49 and 0.70 will not be a major impediment to the use of variables. The majority of the results in Table 2 is above the normally accepted cut-off point of 0.7 (Schmitt, 1996) and therefore, all results are accepted as reliable, which represents high internal consistency of the Likert scales that have been used.

With regard to the model, fit statistics of the CFA regarding positive and negative personalities, leisure time, leisure preferences and happiness are indicated in Figure 1. The calculation of X^2/df is $1286.613/242 = 5.32$, which is just above the 5 threshold and therefore still acceptable. CFI and TLI both need to be ≥ 0.90; they are both (CFI = 0.93; TLI = 0.92) above this level and therefore of acceptable fit. Finally, looking at the RMSEA, the standard is ≤ 0.08 and therefore the RMSEA is also of good fit at 0.05. Overall, it can be accepted that the confirmatory factor analysis regarding the positive personalities, negative personalities, leisure time, leisure preferences and happiness is of good fit. When a model has a good fit, it proves that the model is an accurate representation of the observed data (Field, 2013).

For the CFA, the item loading *p*-values have to be $p \leq 0.05$, meaning that all factor loadings as presented in Table 3 are statistically significant. All standardised errors (SE) loaded small results, proving that all factor loadings that have been done in the CFA represent the variables correctly. Some factor loadings with the largest loadings include *disagreeableness* (0.819), *intraversion* (0.838), *unconscientiousness* (0.864) and *I have to feel trusted by my manager to feel happy at work* (0.803). The smallest factor loadings in the results include *I have at least four leisure activities per week* (0.378), *I visit other casino establishments as leisure* (0.248) and *I prefer passive leisure (reading and watching TV)* (0.295). Even though the factor loadings are very small, these factor loadings are still reported on. The results in Table 3 are important to report on, as these results will contribute to methodology and literature in relation to human resources management and positive psychology.

TABLE 2: Reliability of constructs or factors.

Factors	Omega	Alpha
Happiness	0.777	0.757
Leisure time	0.638	0.613
Leisure preference	0.670	0.660
Positive personalities	0.771	0.770
Negative personalities	0.757	0.736

In Table 4, the authors report on the Pearson's correlation matrix of all factors that have been used, describing the strength of the relationships between identified factors. For this study, the interpretation of the correlations will focus on medium and large correlations, indicating the strength of the correlations between the positive and negative personalities, leisure time and preference, and overall happiness. It can be seen that there is a large negative correlation between the positive personality types and the negative personality types; this makes sense, as they are the total opposites of each other. Gosling *et al.* (2003) support this result in their study; they found that the big five personalities correlate with the 10-item personality inventory and stated that there are five positive and five negative big five personalities. The positive personalities (extraversion, conscientiousness, openness to experience, agreeableness and emotional stability) have a good medium correlation with leisure preference, indicating that the positive personality types do take part in leisure activities, whether active or passive. Lu and Hu (2005) also support this finding; they found that extraverted people correlate positively with all kinds of leisure activities, namely active (i.e. physical sports and activities) and passive leisure (i.e. reading or watching TV). The positive personalities also have a medium correlation with happiness, indicating that positive people experience happiness. Tsigilis and Srebauite (2015) found that neuroticism and extraversion jointly accounted for 49% of the happiness and subjective well-being variability. Finally, it can be seen that there is a large correlation between leisure preference and happiness, proving that employees who take part in leisure activities experience happiness in their lives. Yet again, the study of Lu and Hu (2005) confirms this finding with their statement that leisure satisfaction and happiness are the most direct indicators of leisure effects.

TABLE 3: Confirmatory factor analysis of the positive and negative personality types, leisure time, leisure preferences and overall happiness.

Confirmatory factor analysis	Loading	SE	*P*
Personalities			
Positive personality by	-	-	-
Extraversion	0.726	0.020	0.001
Agreeableness	0.778	0.019	0.001
Openness to experience	0.668	0.020	0.001
Conscientiousness	0.674	0.021	0.001
Emotional stableness	0.560	0.023	0.001
Negative personality by	-	-	-
Disagreeableness	0.819	0.018	0.001
Neuroticism	0.643	0.022	0.001
Intraversion	0.838	0.017	0.001
Unconscientiousness	0.864	0.017	0.001
Derivative	0.496	0.026	0.001
Leisure life			
Leisure time by the following statements	-	-	-
I have at least four leisure activities per week	0.378	0.029	0.001
My job does not interfere with my leisure time	0.755	0.025	0.001
I have enough time away from work to enjoy other things in life	0.772	0.026	0.001
I take all my owed off-days per year	0.434	0.028	0.001
I visit other casino establishments in my leisure time	0.248	0.033	0.001
Leisure preference by the following statements	-	-	-
I prefer active leisure (sports, exercise and travel)	0.595	0.023	0.001
I believe that leisure activities improve productivity	0.785	0.020	0.001
Leisure participation forms part of my lifestyle	0.722	0.020	0.001
I prefer passive leisure (reading and watching TV)	0.295	0.028	0.001
Happiness by the following statements	-	-	-
I have to feel trusted by my manager to feel happy at work	0.803	0.014	0.001
I have to have a good working relationship with my manager to feel good at work	0.786	0.014	0.001
Happiness for me means being able to develop my full potential at work	0.765	0.016	0.001
I am happy at work as long as it does not intrude into my personal life	0.683	0.018	0.001
I need to have a sense of autonomy in my job in order to be happy in it	0.660	0.017	0.001

TABLE 4: Correlations matrix (*r*) of the latent variables (positive and negative personalities, leisure time preference and overall happiness).

Correlations	Positive personality	Negative personality	Leisure time	Leisure preference	Happiness
Positive personality	1.000	-	-	-	-
Negative personality	-0.583***	1.000	-	-	-
Leisure time	0.176*	0.137**	1.000	-	-
Leisure preference	0.484**	-0.150*	0.133*	1.000	-
Happiness	0.408**	-0.103*	0.255*	0.502***	1.000

n = 1502.
*, Small correlation (*r* = 0.10–0.29); **, medium correlation (*r* = 0.30–0.49); ***, large correlation (*r* = 0.50–1.0).

The SEM fit indices between personalities, leisure life and happiness are illustrated in Figure 1. The calculation of X^2/df is 1339.062/243 = 5.5, indicating that this model will be accepted. Both the CFI and TLI are ≥ 0.900 at CFI (0.930) and TLI (0.920), showing that the model is of good fit. Finally, looking at the RMSEA, where the requirement is ≤ 0.07, the model is yet again proven as a good fit with a value of 0.06. This means that the SEM can be accepted as true and a real representation of the observed data (Field, 2013).

Regarding Table 5, it must first of all be noted that all regressions were statistically significant with p-values ≤ 0.001, except for the final regression between happiness and the negative personality types (disagreeableness, neuroticism, intraversion, unconscientiousness and derivative). This shows that there is no statistically significant relationship between negative personality and happiness, indicating that just because someone is a more negative personality type; it does not mean that he or she will not experience happiness. If one looks at the relationship between the positive personality types and happiness, there is a definite relationship. When looking at Figure 1, other relationships that were found include the following:

- There is a positive relationship between the positive personality types and leisure time with a regression weight of β = 0.387, indicating that employees with positive personalities spend time on leisure activities. This result supported H1a.
- There was a positive relationship between positive personalities and happiness, supporting H1b.
- There is a positive relationship between positive personalities and leisure participation with a weight of β = 0.601, indicating that positive personalities take part in leisure activities – supporting H1a. Comparing this to the relationship between the negative personalities and leisure participation, the weighting is much less at β = 0.200, indicating that the relationship between negative personalities and leisure participation is much weaker. This result also rejected H2a as the direction of the relationship was once again positive and not negative as expected. Stephan *et al*. (2014) support this in stating that positive personality types, namely extraverted people with openness to experience, are more likely to engage in different active leisure activities.

- There is a positive relationship between the negative personality types and leisure time with a regression weight of β = 0.363, indicating that even the negative personality types use time to take part in leisure activities. This result rejected H2a as the direction of the relationship was also positive and not negative as expected.
- Regarding the relationship between happiness and leisure participation and leisure time, it can be seen that there is a positive relationship between leisure time and happiness at β = 0.153 (as confirmed by Lu & Argyle, 1994), but an even stronger relationship between happiness and leisure participation (β = 0.376), supporting that when one participates in leisure, one's happiness increases. This result supported H3. Malkina-Pykh and Pykh (2014) found that leisure participation does improve one's happiness and subjective well-being.
- Negative personality did not significantly predict happiness, rejecting H2b.

Concerning Table 6, all indirect effects were found to be statistically significant which confirmed H4 and H5. Mediation is found when one variable (X) has an effect on an outcome variable (Y) through one or more than one intervening variable(s), also known as mediators (Hayes, 2009). It can further be stated that the positive personalities model found a complementary mediation, where both the mediated and direct effect exist and point in the same direction – and the negative personalities model is an indirect-only mediation model as the direct relationship from negative personalities to happiness was not significant (Zhao *et al*., 2014a). Looking at the effects of positive personality on happiness, the sum of indirect effect was shown to be 0.29 (95% CI [0.19, 0.38]). Friedman and Kern (2014) found during their study that agreeableness, extraversion, conscientiousness and openness to experience are positively correlated to subjective well-being, whereas neuroticism was found to be correlated at much lower levels. More specifically, leisure

TABLE 5: Regression analysis between personality types, leisure preference and time and happiness.

Regressions	Beta (β)	SE	p
Leisure time on	-	-	-
Positive personality	0.387	0.049	0.001
Negative personality	0.363	0.054	0.001
Leisure preferences on	-	-	-
Positive personality	0.601	0.049	0.001
Negative personality	0.200	0.049	0.001
Happiness on	-	-	-
Leisure time	0.153	0.035	0.001
Leisure preferences	0.376	0.038	0.001
Positive personality	0.241	0.062	0.001
Negative personality	0.073	0.054	0.178

TABLE 6: Mediation – Indirect effects between happiness, leisure life and personality types.

STDYX standardisation†	Estimate	Lower	Upper
Effects of a positive personality on happiness	-	-	-
Sum of indirect effects	0.29	0.19	0.38
Specific indirect effects	-	-	-
Happiness	-	-	-
Leisure time	-	-	-
Positive personality	0.06	0.02	0.10
Happiness	-	-	-
Leisure preference	-	-	-
Positive personality	0.23	0.15	0.30
Effects of negative personality on happiness	-	-	-
Sum of indirect effects	0.13	0.06	0.21
Specific indirect effects	-	-	-
Happiness	-	-	-
Leisure time	-	-	-
Negative personality	0.06	0.02	0.09
Happiness	-	-	-
Leisure preference	-	-	-
Negative personality	0.08	0.02	0.13

†, Standardised Beta Coefficient.
Lower and upper = 95% confidence interval.

time mediated the relationship between positive personality and happiness at 0.06 (95% CI [0.02, 0.10]). Secondly, leisure preference mediated the relationship between positive personality and happiness at 0.23 (95% CI [0.15, 0.30]), which was the highest mediation result in this section. An interesting study that was completed by Qian *et al*. (2014) which found that daily stress triggered busy individuals to allocate more time to leisure. Concerning the effect sizes of the negative personality types to happiness, the sum of the indirect effect is shown to be 0.13 (95% CI [0.06, 0.21]). Leisure time mediated the relationship at 0.06 (95% CI [0.02, 0.09]). Finally, leisure preference mediated the relationship between the negative personality and happiness at 0.08 (95% CI [0.02, 0.13]). In general, it seems that leisure preference had a larger mediating effect than leisure time.

Findings and managerial implications

Firstly, one can construe that the factors in Table 1, namely positive personalities, negative personalities, leisure time, leisure preference and happiness achieved, are acceptable reliabilities, even when a short five-point Likert scale was used in the questionnaire, indicating that the Likert scales that were used in measuring variables are representative of the variables that they represent. This indicated to the authors that they could continue in reporting the CFA, as they are statistically representative.

Secondly, correlations were calculated and included in the statistical analysis; the first correlation that was tested was between negative (neuroticism, closedness, introversion, antagonism and lack of direction) and positive personalities (extraversion, agreeableness, conscientiousness, emotional stability and openness to experience); the correlation was negative (Table 4). This result proved the suspicion that the positive personality factors are the opposite of the negative personality factors, indicating that a casino employee either has a positive or a negative personality type. Positive personalities had a positive correlation with leisure preferences, indicating that positive personalities like participating in leisure activities. A specific implication of this finding is that human resources managers could provide more leisure opportunities. Examples could be employee engagement programmes, participating in the *Nelson Mandela Day*, contributing to community involvement as a form of a leisure activity by team or department employee participation and sport education of community youth) available to the casino employees with positive personalities; these casino employees are most likely to participate in the leisure activities and could enjoy it (Naude, Kruger & Saayman, 2013). The positive personalities also showed a positive correlation with happiness, proving that these casino employees experience happiness in the workplace. This verifies the fact that casino employees with a positive personality are happy people in general as well as in the workplace. The final result from the correlations was the positive correlation between leisure preference and happiness, proving that people who take part in preferred leisure-related activities experience happiness.

This finding implies that there is an opportunity for human resources and general management to make more opportunities available to casino employees to take part in leisure. This will improve the happiness that they experience in the workplace even more.

Thirdly, a regression analysis was done to determine relationships between factors (Table 5). A positive relationship was found between positive personality types and leisure time, indicating that positive personality types value setting aside leisure time instead of just focussing on their work. A positive regression was found between negative personality types and leisure time, proving that even negative personality types set aside time for leisure activities. An implication of this finding is that instead of giving positive and negative personality types more fringe benefits, management could rather consider giving them more time off during non-peak busy periods to take part in leisure activities, as the casino employees value taking part in leisure activities. Furthermore, human resources managers cannot make changes in terms of their personality type to employees who are employed in the current work environment. It is suggested that future applicants should be well screened by human resources managers, based on personality types. The employees are often interacting with guests in the casino environment and negative personalities might not cope well in front-of-house operations in the casino. They could possibly be employed in back-of-house jobs (Yavas, Karatepe & Babakus, 2010, 2013). A positive relationship was found between positive personalities and leisure participation, showing that positive personalities like taking part in leisure activities. Furthermore, there is an opportunity here to expose positive employees to more and different types of leisure activities, as they enjoy taking part in them. The relationship between negative personalities and leisure participation was much smaller, indicating that negative personalities are not that keen to take part in leisure compared to their counterparts. Looking at the relationship between happiness and leisure participation and leisure time, a positive relationship was found between happiness and leisure participation, showing that the more leisure activities you take part in, the happier you tend to be. An entertainment manager who is based at the casino could induce the following leisure participation activities that could then have a positive effect on casino employees' happiness: personal development (furthering educational achievement and on the job training); outdoor activities (an outing to a nature reserve with fellow employees); social activity (taking a drink with fellow employees after work); and sport (exercising with fellow employees in a gym or fitness club) (Lee, Lee, Lee & Shaffer, 2014). These findings imply that if management wants happy casino employees, they should give them the opportunity and time to take part in leisure activities and expose them to different types of activities; the end result will be a happier workforce.

Finally, looking at the mediation, all mediation results proved to be statistically significant, with leisure time proving to be a mediator between positive personality types and happiness. Leisure preference was the strongest mediator between

positive personalities and happiness. Making leisure activities available for the positive personality types to take part in is therefore an important factor to ensure that the employees are happier at the end of the day. Leisure preference and time both proved to be mediators between negative personalities and happiness. An implication for human resources and general management would be that they should take cognisance of the fact that negative personality types enjoy leisure and should therefore also be exposed to different leisure activities and some more leisure time should be made available to them.

Conclusion and recommendations

The goal of the study was to research the effect of casino employees' personalities on their leisure life and happiness. Firstly, it was determined that negative and positive personalities have a strong negative correlation, confirming the fact that these two groupings of personalities are each other's opposites. Positive personalities had a positive correlation with leisure preference and happiness, indicating that they like taking part in leisure activities and that they experience happiness. The SEM proved that casino employees' personality types definitely have an influence on their leisure life and the happiness that they experience. A positive relationship was found between positive personality types and leisure time and leisure participation, proving that positive personality types tend to set aside time to take part in leisure activities and that they enjoy taking part in leisure. Negative personality types seem to set aside time for leisure participation, but the actual leisure participation does not always take place. A positive relationship was found between leisure participation and time and happiness, proving that setting aside time for leisure and taking part in leisure activities improve happiness. Finally, leisure time was found to be a mediator between both positive and negative personalities and happiness, confirming the fact that having time and setting apart time to take part in leisure will improve people's happiness. Leisure participation was found to be the strongest mediator in this relationship, proving the value of taking part in enjoyable leisure activities.

The contribution of this article is the important findings that can be used in the casino industry by human resources and general managers. The importance of leisure participation and time to take part in leisure activities, as well as the positive results it will have on the casino employees' happiness in the workplace, has been highlighted. If human resources and general management therefore want happier casino employees in the workplace, they should make more leisure activities available to them, as well as time to take part in it; the result will be casino employees who are happier human beings.

Empirical evidence regarding this study's topic seems to be very limited, making the study extremely valuable and insightful with regard to casino employees, their personalities, leisure life and overall happiness or subjective well-being. The human resources divisions of casinos can therefore use this information if they need to look at improving casino employees' leisure lives or happiness experienced. The goal of the study was to make a contribution to existing literature concerning South African casino employees, as well as the managerial implications of improving the happiness and leisure life of casino employees. This study clearly proved that whether the casino employees have a negative or positive personality type, they will experience happiness when they have time to take part in leisure activities and are able to take part in leisure activities that they prefer.

Limitations of this study are that it was only done on a selected casino group's employees in South Africa. Results may differ if all casino employees in South Africa were studied and the researcher can therefore not generalise the findings and make it applicable to all casino employees. A suggestion for future research will be to focus on all casino employees across South Africa; this will supply scientists with representative data of the casino industry. Endless opportunities exist to look further into casino employees' leisure lives or happiness and to improve it even more.

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Competing interests

Authors' contributions

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Exploring personality traits, mindfulness and sense of coherence of women working in higher education

Authors:
Claude-Hélène Mayer[1] (ORCID)
Sabie Surtee[2] (ORCID)
Delene Visser[1]

Affiliations:
[1]Department of Industrial and Organisational Psychology, University of South Africa, South Africa

[2]Higher Education Resource Services Network in South Africa, Cape Town, South Africa

Corresponding author:
Claude-Hélène Mayer,
claudemayer@gmx.net

Orientation: Previous research shows that personality traits (PT), mindfulness (MI) and sense of coherence (SOC) are connected to psychological well-being and of importance to Human Resource Management (HRM).

Purpose: The purpose of this article was to determine the relationship between PT, MI and SOC of women working in South African Higher Education Institutions (HEIs).

Motivation for study: The study explores the relationships of PT, MI and SOC in women in HEIs to contribute to a deeper understanding of these relationships within the HRM context, particularly with regard to training and development in HEIs.

Research design, approach and method: A cross-sectional, survey-based research design was used to address the research objective. Both snowball and convenience sampling were utilised to obtain the sample ($n = 125$). The sample was derived from the Higher Education Resource Services network. The Life Orientation Questionnaire, Freiburger MI Inventory and Big Five PT Questionnaire were utilised and showed acceptable levels of reliability. Exploratory factor analysis with either a direct oblimin or varimax rotation was used to investigate the factor structure of the questionnaires ($\lambda < 1$ were used), because one of the questionnaires had not been used in the South African context before. Descriptive statistics, factor analysis, Spearman/Pearson correlations, canonical correlations and multiple regressions were used to determine the relationship between the variables.

Main findings: The results showed a significant relationship between the components PT, MI and SOC. It appears that PT plays a significant role in influencing MI and SOC.

Practical/managerial implications: Managers and human resource practitioners need to recognise how PT, MI and SOC interrelate and need to become aware of the impact of these positive psychological constructs on women in HEIs.

Contribution: These findings contribute new knowledge that can be used to create healthy HEIs through empirically-based, gender-specific training programmes.

Introduction

Research in higher education institutions (HEIs) has emphasised that African institutions face managerial and social inequities, such as gender imbalances (Teferra & Altback, 2004), gender discrimination, stereotypes and bias (Martin & Barnard, 2013). These factors negatively influence the self-perceived psychological well-being of women (Mayer & Van Zyl, 2013) and affect their ability to cope with life/work-related demands (Mostert, 2009). Latzman and Masuda (2013) suggested that certain personality 'traits' may act as a buffer against the onset of psychopathology associated with the aforementioned demands. Yet, Human Resource Management (HRM) research on psychological well-being, sense of coherence (SOC) and mindfulness (MI), as well as the buffering personality traits (PT) amongst South African women in HEIs is limited.

Whilst HEIs aim to rectify gender imbalances by increasing the number of female students and staff (Chimombo, 2003), the latter still experience marginalisation and exclusion from senior positions (Mama, 2003). It has been emphasised previously (Baxter, 2012) that gender discrimination, glass ceiling effects, and work-life balance struggles as well as work overload impact negatively on women's health and well-being (Mostert, 2009). Past research on gender within South Africa mainly focussed on ill health (Macik-Frey, Quick, Quick & Nelson, 2009). However, with the recent shift towards positive psychology, research focus has been directed towards optimal health and well-being of women at work within African contexts (Darkwah, 2007; Louw, Mayer & Surtee, 2014; Opie & Henn, 2013).

With the increase of women in HEIs, research is needed that focusses not only on traditional concepts of women as caregivers (Boadu, 2000), but rather on women in 'feminine leadership' (Powell, Butterfield & Parent, 2002). Further research is needed on the sustainability of health and well-being of women from a positive psychology perspective (Mayer & Van Zyl, 2013). Previous research on (black) women in HEIs shows that women feel (1) challenged by 'Old Boy Networks', (2) isolated and disrespected, (3) salient of race and gender, (4) under or overloaded with work, (5) torn between family, community and career and (6) challenged by students (Viernes Turner, 2002, p. 77). These factors may attribute to a decline in well-being of women (Mayer & Van Zyl, 2013) and could affect work-related performance (Mostert, 2009).

Concepts, such as PT, SOC and MI, and their relationship within women in HEIs are described and investigated in this article to lay a foundation for scholarly inquiry regarding health and well-being in women. PT (extraversion and openness to experience) were shown to act as buffers against the effects of negative work or life demands (Latzman & Masuda, 2013), SOC and MI support female leaders in overcoming work challenges (Louw *et al.*, 2014; Mayer, 2011) and PT and SOC are interrelated (Hochwälder, 2012; Kardum & Hudek-Knezevic, 2012; Latzman & Masuda, 2013). A meta-analysis indicated that MI is related to PT with the strongest correlations being between MI, neuroticism, negative affect and conscientiousness (Giluk, 2009).

The purpose of this paper is to determine the relationship between PT, MI and SOC of women working in South African HEIs. The study thereby contributed to the knowledge on PT, MI and SOC amongst women working in HEIs.

Literature review

Personality traits

The Big Five PT Questionnaire is based on one of the most cited models on personality research (Judge & Zapata, 2014). The Big Five PT provides understanding of PT at a broader level, including (1) *extraversion* (the extent an individual derives energy from both the social and material world and includes traits such as activity, assertiveness and sociability), (2) *agreeableness* (an orientation associated with altruistic, sympathetic and tender-minded interaction towards others), (3) *conscientiousness* (the extent of an individual's preference for self-control in relation to planning, organising and execution of tasks), (4) *neuroticism* (a dimension of normal personality associated with a tendency towards experiencing negative and dysfunctional emotions) and (5) *openness to experience* (the experience and acceptance of the breadth, depth, complexity and originality of one's psychological and experiential life and it includes traits such as an active imagination, sensitiveness to inner feelings, a preference for variety and acceptance of change) (Rothmann & Coetzer, 2003).

PTs aided individuals to cope with and meet the demands of physical, social and cultural environments (Mc Donald,

1998). Laher and Croxford (2013) emphasised the need to research PT in the context of gender in South African organisations, because international studies have highlighted gender differences in PT (McCrae *et al.*, 2005). Neuroticism and agreeableness are more frequently associated with women (Williams, Satterwhite & Best, 1999). Similarly, within a US sample, women were more likely to experience neuroticism, agreeableness and extraversion (Costa, Terracciano & McCrae, 2001). In other countries women differed significantly in openness to experience and conscientiousness in relation to men (Costa *et al.*, 2001). However, Hyde (2005) pointed out that there are more similarities across genders than differences. Within the African context, fewer gender differences are described than in European contexts (McCrae *et al.,* 2005). Laher and Croxford (2013) presented differences with a moderate effect on neuroticism, anxiety, vulnerability, aesthetics, altruism, modesty and agreeableness.

Mindfulness

MI is defined as a product of spiritual practice, which manifests in non-judgemental acceptance, curiosity, and enthusiasm for life (Germer, 2005). Walach *et al*. (2006) indicated that MI is comprised of three components: (1) *non-judgemental acceptance* (to accept current events or situations without judgement), (2) *mindful presence* (sustained awareness of mindful experiences over time) and (3) *insight* (deeper understanding of one's self, the environment and others in the present). Mindful persons are aware of their own actions, live in the present moment (Brown & Ryan, 2003) and connect fully to the self and to others, whilst living through 'being' rather than through 'doing' (Kabat-Zinn, 2006). MI is associated with adopting a non-judging, non-striving attitude, acceptance, non-attachment, gentleness and kindness (Schmidt, 2004). It is associated with psychological well-being (Brown, Ryan & Creswell, 2007) and inversely associated with distress (Masuda, Prince & Latzman, 2012). MI has been studied in (higher) educational contexts (Bush, 2011; Lawlor, 2014). MI in women has mainly been researched in clinical and experimental settings (Dobkin & Zhao, 2011). Previous research (Louw *et al*., 2014) found a significant correlation between manageability and MI in the South African HEI context. However, very limited research on MI and its associations exists within the South African context (Van Zyl & Rothmann, 2012).

Sense of coherence

SOC is a general life orientation (Antonovsky, 1979), which responded to the question of 'what keeps people healthy' (Antonovsky, 1987). SOC is based on three components, namely, *comprehensibility* (ones' understanding of the world), *manageability* (how one copes with challenges) and *meaningfulness* (how one is motivated through the construction of meaning in life). SOC is positively associated with various individual outcomes such as resilience, and mental and physical health (Morrison & Clift, 2006).

Women displayed relatively lower SOC than men (Antonovsky, 1987; Lindström & Eriksson, 2005; Mayer, 2011). However, the mean scores for SOC in male and female students in Sweden were similar (Von Bothmer & Fridlund, 2003), women in South Africa scored higher on meaningfulness than men (Louw, Mayer & Baxter, 2012) and African and Indian women in South Africa experienced higher levels of SOC than Caucasians (Mayer & Van Zyl, 2013). Previous research into SOC amongst female academics in two South African universities showed high burn-out and low SOC scores (Bezuidenhout & Cilliers, 2010).

Relationships between personality traits, mindfulness and sense of coherence

SOC and MI are connected (Christopher *et al.*, 2011) and both influenced women's health and well-being in various populations (Galantino, Baime, Maguire, Szapary & Farrar, 2005; Grossman, Niemann, Schmidt & Walach, 2004), effective coping (Brown & Ryan, 2003) and resource-orientation (Walsh & Shapiro, 2006). Additionally, MI and PT revealed strong associations (Chavers, 2013), impacted positively on health (Goodwin & Friedman, 2006; Hayes, Luoma, Bond, Masuda & Lillis, 2006) and were central components in cognitive and behavioural therapies (Latzman & Masuda, 2013). MI correlated significantly with PT (Giluk, 2009), whilst MI was negatively associated with neuroticism and positively associated with conscientiousness (Latzman & Masuda, 2013). However, further research is needed (Chavers, 2013; Latzman & Masuda, 2013).

SOC correlated with PT (Hochwälder, 2012), whereas PT explained a substantial part of the variability in SOC (Hochwälder, 2012) and extraversion, neuroticism and openness were represented in health-related concepts much more than agreeableness and conscientiousness (Kardum & Hudek-Knezevic, 2012).

Research objectives and hypotheses

Based on the literature review it is hypothesised that interrelationships exist between the PT, MI and SOC of working women within South African HEIs These constructs are measured by the Big Five Inventory (BFI), Freiburger Mindfulness Inventory (FMI-14) and Life Orientation Questionnaire (LOQ). It has been pointed out that PT influence SOC, MI influences SOC, PT influence MI and PT influence MI which influences SOC. These relationships thus suggest that PT and MI be regarded as the independent variables and SOC as the dependent variable. The hypotheses are presented as follows:

- **Hypothesis 1:** There are positive correlations between PT (extraversion, agreeableness, conscientiousness and openness), MI and SOC for women employed in South African HEIs.
- **Hypothesis 2:** The PT construct of neuroticism correlates negatively with MI and SOC for women employed in South African HEIs.

- **Hypothesis 3:** The independent variables, PT and MI, predict SOC for women employed within South African HEIs.

Method

Research approach

A cross-sectional survey-based correlational research design, in which self-administered questionnaires were utilised, was used to achieve the research objective.

Participants and procedures

Non-probability sampling was used in this study. Both snowball and convenience sampling were utilised to obtain a workable sample (*n* = 125). Initially questionnaires were distributed amongst 950 women belonging to the Higher Education Resource Services network in South Africa (HERS-SA), with a limited response rate (*n* = 80). Thereafter, potential participants were contacted and requested to forward the questionnaire to individuals who matched the sample criteria. Surveys were distributed through two channels, namely, hardcopies and electronically via email. The sample was therefore increased by 45. The data was captured and processed through SPSS.

Table 1 indicates that the largest proportions of the female participants were English-speaking (47.2%), married (56.0%), and had two children (32%). Many held doctoral degrees (48%) and were employed in managerial positions (39.2%) at HEIs.

Measuring instruments

A biographical questionnaire was used to gather biographic and demographic information on participants.

The 44-item BFI (Goldberg, 1993) was used to measure the various PT constructs, namely conscientiousness, openness, extraversion, agreeableness and neuroticism on a five-point Likert scale. Within South Africa, Rothmann and Coetzer (2003) found that the BFI produced acceptable levels of internal consistency ranging from 0.76 to 0.86 on Conscientiousness (α = 0.78), Openness (α = 0.77), Extraversion (α = 0.83), Agreeableness (α = 0.76) and Neuroticism (α = 0.86).

The 14-item FMI-14 (Walach *et al.*, 2006) was administered to measure participants' perceived level of MI. It measures awareness and the non-judgement of present moment experiences on a four-point Likert scale. Confirmatory analysis confirmed construct validity of the FMI-14 (Sauer, Walach, Offenbächer, Lynch & Kohls, 2011) These authors have also reported external validation studies of the FMI-14 and an acceptable level of internal consistency (α = 0.86). The instrument is widely used across cultures in clinical and non-clinical populations.

The 29-item LOQ; (Antonovsky, 1979) was used to determine the participants' SOC, including comprehensibility,

TABLE 1: Characteristics of participants.

Item	Category	Frequency	Percentage
Gender	Female	125	100
	Missing values	0	0
Age	29 to 35 years	17	13.6
	36 to 40 years	17	13.6
	41 to 45 years	26	20.8
	46 to 50 years	20	16.0
	51 to 55 years	22	17.6
	56 to 60 years	17	13.6
	61+ years	5	4.0
	Missing values	1	0.8
Language group	Afrikaans	34	27.2
	English	59	47.2
	Sotho	9	7.2
	Xhosa	6	4.8
	Tswana	9	7.2
	Zulu	4	3.2
	Hindi	1	0.8
	Sepedi	1	0.8
	SiSwati	1	0.8
	Missing values	1	0.8
Marital status	Single	36	28.8
	Married	70	56.0
	Divorced	12	9.6
	Living with a partner	1	0.8
	Widow	1	0.8
	Missing values	5	4.0
Children	Yes	92	73.6
	No	30	24.0
	Missing values	3	2.4
Number of children	1 child	25	20.0
	2 children	40	32.0
	3 children	16	12.8
	4 children	3	2.4
	5 or more children	1	0.8
	Missing values	7	5.6
Level of education	Doctoral degree	60	48.0
	Master's degree	43	34.4
	Honours degree	9	7.2
	Graduate degree	9	7.2
	Diploma	3	2.4
	High school	1	0.8
	Missing values	0	0
Current position	Academic	34	27.2
	Support Staff	42	33.6
	Management	49	39.2
	Missing values	0	0

$N = 125$.

manageability and meaningfulness, on a seven-point Likert scale. Muller and Rothmann (2009) indicated that the LOQ produced acceptable levels of internal consistency on the various subscales ($0.80 \leq \alpha \leq 0.83$). However, it is important to note that various factor structures and levels of internal consistency have been found within the South African context (Van Schalkwyk & Rothmann, 2008).

Design

A cross-sectional survey-based correlational research design was used to gather data on the participants' PT, MI and SOC at a single point in time. Ethical guidelines were followed

and ethical clearance for the project was obtained from Rhodes University, Grahamstown, South Africa.

Data analysis

The SPSS (SPSS Inc, 2012) statistical analysis package was used to process the data. Exploratory factor analysis, with principal component analysis was conducted to determine the factor structure of the items in the questionnaires. Sampling adequacy was determined by using Bartlett's test of Sphericity and the Kaiser-Meyer-Olkin measure to determine the factorability of the items. Principal axis factoring and either a varimax or direct oblimin rotation was performed to investigate the factor structure of the measuring instruments. The number of factors was determined through the use of the Kaiser criterion and eigenvalues ($\lambda > 1$) (Field, 2009). Cronbach's coefficient alphas were calculated to determine the internal consistency of the measuring instruments (Salkind, 2012).

Depending on the distribution, Pearson/Spearman correlation coefficients, with a significance level of $p < 0.05$ (Field, 2009), were used to determine the relationships between the variables. Effect sizes were used to determine the practical significance of the correlational results (Steyn, 1999). The suggested cut-off points of 0.30 (medium effect) and 0.50 (large effect) were utilised in order to determine the level of practical significance (Field, 2009). Canonical correlations were computed to determine whether there were multiple relationships between the variables. Canonical correlations are used in order to determine the relationship between two sets of variables and a cut-off point of 0.30 was used (Tabachnick & Fidell, 2001). Stepwise hierarchical multiple regression analyses (enter method) were carried out to determine the proportion of variance in SOC declared by PT and MI. Practical significance was again represented by Steyn's (1999) effect sizes (> 0.35 equals large effect) and was determined through the following formula: $f^2 = R^2/(1 - R^2)$.

Results
Factor analysis

Principal axis factoring with a varimax rotation was conducted on the 44 items of the BFI. The scale produced individual factor loadings which were higher than Field's (2009) suggested 0.30 for the majority of the items. However, 10 items (3, 12, 18, 23, 30, 33, 34, 35, 41 and 42) had to be removed from further analysis as they did not conform to the suggested communality cut-offs. The initial Kaiser-Meyer-Olkin measure of sampling adequacy revealed a value of 0.77 which, according to Field (2009), indicates that the items were factorable. Furthermore, Bartlett's test of sphericity was significant ($\chi^2_{(561)} = 1859.60$; $p < 0.01$). Kaiser criterion resulted in five factors being extracted (cumulative $R^2 = 45.41\%$). The first factor was labelled Extraversion ($\lambda = 6.40$; $R^2 = 18.81\%$; $\alpha = 0.85$), the second Neuroticism ($\lambda = 3.77$; $R^2 = 11.07\%$; $\alpha = 0.79$) the third Conscientiousness ($\lambda = 3.36$; $R^2 = 9.88\%$; $\alpha = 0.74$), the fourth Agreeableness ($\lambda = 2.17$; $R^2 = 6.39\%$; $\alpha = 0.79$) and, finally, Openness ($\lambda = 1.93$; $R^2 = 5.68\%$; $\alpha = 0.76$).

Principal axis factoring with a direct oblimin rotation was utilised on the 14 items of the FMI-14. The scale produced factor loadings which were higher than Field (2009) suggested (0.30), with the exception of items 13 and 14 (which were removed from further analysis). The initial Kaiser-Meyer-Olkin measure of sampling adequacy revealed a value of 0.83 which, according to Field (2009), indicates that the items were factorable. Furthermore, Bartlett's test of sphericity was shown to be highly significant ($\chi^2_{(45)} = 318.31$; $p < 0.01$). Eigenvalues (> 1) resulted in three factors being extracted (cumulative $R^2 = 62.64\%$). The first factor was labelled Non-judgemental acceptance ($\lambda = 3.86$; $R^2 = 38.59\%$; $\alpha = 0.78$), the second Insight ($\lambda = 1.23$; $R^2 = 12.31\%$; $\alpha = 0.73$) and the third Mindful presence ($\lambda = 1.17$; $R^2 = 11.74\%$; $\alpha = 0.71$).

Principal axis factoring with a varimax rotation was utilised on the 29 items of the LOQ. The initial Kaiser-Meyer-Olkin measure of sampling adequacy revealed a value of 0.85 which, according to Field (2009), indicates that the items were factorable. Furthermore, Bartlett's test of sphericity produced highly significant results ($\chi^2_{(136)} = 739.03$; $p < 0.01$). The scale produced factor loadings which were higher than Field's (2009) suggested 0.30. Both the Kaiser criterion, as well as eigenvalues, resulted in three factors being extracted (cumulative $R^2 = 55.68\%$). The first factor was labelled Comprehensibility ($\lambda = 5.20$; $R^2 = 32.49\%$; $\alpha = 0.83$), the second Manageability ($\lambda = 2.25$; $R^2 = 14.08\%$; $\alpha = 0.65$) and the third Meaningfulness ($\lambda = 1.46$; $R^2 = 9.11\%$; $\alpha = 0.76$).

Descriptive statistics and correlations

The descriptive statistics in relation to means, standard deviations, skewness, kurtosis and Cronbach alpha coefficients, as well as the correlations are reported in Table 2, which shows that all scales show sufficient reliability ($\alpha > 0.60$) with alpha values varying from 0.65 to 0.85 (Nunnally, 1978). With the exception of Comprehensibility and Openness, all factors were normally distributed.

The following statistically ($p < 0.01$) and practically significant ($r > 0.30$) correlations were found: Comprehensibility

correlated positively with Manageability, Non-judgemental acceptance, Insight, Agreeableness and negatively with Neuroticism, all with a medium effect. The results showed that a significant positive relationship exists between Manageability and Non-judgemental acceptance, Insight, Conscientiousness as well as a negative relationship with Neuroticism, with a medium effect. Furthermore, Non-judgemental acceptance correlated positively with Mindful presence and negatively with Neuroticism (with a large effect) as well as positively with Insight and Agreeableness (with a medium effect). Insight correlated positively with Mindful presence, Agreeableness and negatively with Neuroticism (with a medium effect). Mindful presence correlated positively with Extraversion (with a medium effect). Extraversion only positively correlated with Agreeableness, with a medium effect. Similarly, Agreeableness correlated positively with Openness, with a medium effect. Agreeableness correlated negatively with Neuroticism, with a large effect (Table 2).

The magnitude and extent of the intercorrelations given in Table 2 are therefore evidence that Hypotheses 1 and 2 may be partially accepted.

Multivariate statistics

Canonical correlations were subsequently performed to determine whether there were multiple relationships between the variables. The Wilks-Lambda test of significance indicated that the results were statistically significant ($p = 0.001$). The p value was below 0.01 in order to indicate significance and reliability of the results (Tabachnick & Fidell, 2001). Therefore, a significant canonical correlation was produced at 0.72 with 51.51% overlapping variance. The first F-test ($F_{(30, 362)} = 4.46$ $p < 0.05$) produced statistically significant results. The second F-test ($F_{(20, 302.67)} = 2.65$ $p > 0.05$), third F-test ($F_{(12, 243.7)} = 2.15$ $p > 0.05$), fourth F-test ($F_{(6, 186)} = 1.41$ $p > 0.05$) and fifth F-test ($F_{(2, 94)} = 0.24$ $p > 0.05$) were not statistically significant. Tabachnick and Fidell (2001) indicated that only canonical correlations with medium to high (> 0.30) effects should be interpreted (Table 3).

TABLE 2: Descriptive statistics, reliabilities and correlations between sense of coherence, mindfulness and Big 5 personality traits.

Item	Mean	SD	Skewness	Kurtosis	α	1	2	3	4	5	6	7	8	9	10
Sense of coherence															
Comprehensibility	2.23	0.93	1.27	3.09	0.83	-	-	-	-	-	-	-	-	-	-
Manageability	4.86	0.74	-0.30	-0.30	0.65	0.46*†	-	-	-	-	-	-	-	-	-
Meaningfulness	3.68	1.41	0.09	-0.87	0.76	0.01	0.28*	-	-	-	-	-	-	-	-
Mindfulness															
Non-judgemental acceptance	2.80	0.65	-0.22	-0.30	0.78	0.32*†	0.32*†	0.08	-	-	-	-	-	-	-
Insight	3.05	0.61	-0.62	0.49	0.73	0.33*†	0.30*†	-0.15	0.39*†	-	-	-	-	-	-
Mindful presence	3.08	0.58	-0.16	-0.72	0.71	0.28*	0.26*	0.06	0.50*‡	0.35*†	-	-	-	-	-
Personality traits															
Extraversion	3.58	0.87	-0.35	-0.70	0.85	0.26*	-0.01	-0.12	0.24*	0.09	0.15	-	-	-	-
Agreeableness	4.10	0.56	-0.52	-0.15	0.79	0.33*†	0.23*	0.13	0.30*†	0.34*†	0.31*†	0.14	-	-	-
Conscientiousness	4.16	0.54	-0.51	-0.45	0.74	0.17	0.42*†	0.07	0.06	0.09	0.18	-0.14	0.17	-	-
Neuroticism	2.44	0.70	0.51	0.65	0.79	-0.39*†	-0.46*†	-0.10	-0.56*‡	-0.47*†	-0.28*	-0.19*	-0.50*†	-0.25*	-
Openness	3.91	0.58	-0.53	1.08	0.76	0.25*	0.09	-0.10	0.17	0.27*	0.28*	0.31*†	0.23*	0.10	-0.08

SD, Standard deviation.

*, $p < 0.05$ – statistically significant; †, $r > 0.30$ – practically significant (medium effect); ‡, $r > 0.50$ – practically significant (large effect).

The first canonical variate accounted for a significant relationship between the antecedent and outcome variable sets. Regarding Tabachnick and Fidell's (2001) suggested cut-off score of 0.30, only *Agreeableness* (-0.49), *Neuroticism* (0.94) and *Openness* (-0.38) correlated with the first canonical variate within the antecedent set. In the outcome set, only *Meaningfulness* (-0.06) did not correlate with the first canonical variate. This implies that the first canonical variate indicates that lower levels of *Manageability, Non-judgemental acceptance, Insight* and *Mindful presence,* coupled with higher levels of *Comprehensibility,* are associated with lower levels of *Agreeableness* and *Openness* as well as higher levels of *Neuroticism*.

These findings provide further evidence for the acceptance of Hypotheses 1 and 2.

Multiple regressions

To determine if PT (Extraversion, Agreeableness, Conscientiousness Neuroticism, Openness) and MI (Non-judgemental acceptance, Insight, Mindful presence) predict SOC (Comprehensibility, Manageability, Meaningfulness), three multiple regression analyses were conducted, by means of the so-called enter method, namely the simultaneous entry of the independent variables. The results of the multiple regression analyses are presented in Tables 4 and 5.

Table 4 summarises the regression analyses with PT (Extraversion, Agreeableness, Conscientiousness Neuroticism, Openness) and MI (Non-judgemental acceptance, Insight, Mindful presence) as the predictors of Comprehensibility. Both the first and second model did not produce a practically significant effect size ($f^2 < 0.35$). MI was entered at the first step of the regression and produced a statistically significant model ($F_{(3, 118)} = 5.94$; $p = 0.00$) that accounted for 13% of the variance. Only Insight ($\beta = 0.24$; $t = 2.57$; $p \leq 0.05$) predicted Comprehensibility in the first model. When PT were entered into the second step of the analysis, a statistically significant model ($F_{(8, 113)} = 3.94$; $p = 0.00$) was produced which explained 22% of the total variance. Here, only Neuroticism ($\beta = -0.23$; $t = -1.91$; $p \leq 0.05$) predicted Comprehensibility.

Similarly, Table 5 summarises the regression analyses with PT and MI as the predictors of Manageability. MI was entered at the first step of the regression analysis and produced a statistically significant model ($F_{(3, 116)} = 5.91$; $p = 0.00$) that accounted for 13% of the variance. The first model did not produce a practically significant effect size ($f^2 < 0.35$). Only Insight ($\beta = 0.18$; $t = 1.90$; $p \leq 0.05$) predicted Manageability in the first model. When PT were entered into the second step of the analysis, a statistically significant model ($F_{(8, 111)} = 7.74$; $p = 0.00$) was produced which explained 36% of the total variance. The second model produced a practically significant effect size ($f^2 > 0.35$). Both Conscientiousness ($\beta = 0.30$; $t = 3.46$; $p \leq 0.05$) and Neuroticism ($\beta = -0.40$; $t = -3.60$; $p \leq 0.050$) are significant predictors of Manageability in the second model.

Finally, PT and MI were entered as the predictors of Meaningfulness. MI was entered at the first step ($F_{(3, 119)} = 2.29$; $p = 0.08$) and PT at the second step ($F_{(8, 114)} = 1.90$; $p = 0.06$) of the regression analysis. Neither produced statistically or practically significant models.

TABLE 3: Results of canonical analysis: Big 5 personality traits, mindfulness and sense of coherence.

Antecedent and outcome variables	First canonical variate	
	Correlation	Coefficient
Antecedents set	-	-
Extraversion	-0.27	-0.02
Agreeableness	-0.49	0.03
Conscientiousness	-0.22	0.04
Neuroticism	0.94	0.94
Openness	-0.38	-0.33
Percent of variance	14.35	-
Redundancy	27.86	-
Outcomes set	-	-
Comprehensibility	0.54	0.54
Manageability	-0.63	-0.63
Meaningfulness	-0.06	-0.06
Non-judgemental acceptance	-0.80	-0.80
Insight	-0.74	-0.74
Mindful presence	-0.42	-0.42
Percent of variance	34.32	-
Redundancy	17.68	-
Canonical correlation	0.72	-

TABLE 4: Multiple regression analysis with comprehensibility as a dependent variable.

Model	Predictor variables	Unstandardised coefficients		Standardised coefficients: Beta	t	p	F	R	R²	ΔR²	f²
		B	SE								
1	(Constant)	4.30	0.52	-	8.35	0.00					
	Non-judgemental acceptance	0.14	0.15	0.10	0.96	0.34	5.94	0.36	0.13	0.13	0.15
	Insight	0.37	0.14	0.24	2.57	0.01					
	Mindful presence	0.18	0.16	0.11	1.12	0.26					
2	(Constant)	3.96	1.32	-	3.00	0.00					
	Non-judgemental acceptance	0.04	0.16	0.03	0.23	0.82					
	Insight	0.19	0.15	0.13	1.27	0.21					
	Mindful presence	0.13	0.17	0.08	0.75	0.46					
	Extraversion	0.16	0.10	0.15	1.60	0.11	3.94	0.47	0.22	0.09	0.28
	Agreeableness	0.04	0.16	0.03	0.26	0.80					
	Conscientiousness	0.05	0.16	0.03	0.28	0.78					
	Neuroticism	-0.29	0.15	-0.23	-1.91	0.05					
	Openness	0.17	0.14	0.11	1.18	0.24					

TABLE 5: Multiple regression analysis with manageability as a dependent variable.

Model	Predictor variables	Unstandardised coefficients		Standardised coefficients: Beta	t	p	F	R	R^2	ΔR^2	f^2
		B	SE								
1	(Constant)	3.09	0.45	-	6.94	0.00					
	Non-judgemental acceptance	0.16	0.12	0.13	1.28	0.20	5.91	0.36	0.13	0.13	0.15
	Insight	0.23	0.12	0.18	1.90	0.05					
	Mindful presence	0.22	0.14	0.16	1.53	0.13					
2	(Constant)	3.84	1.03	-	3.74	0.00					
	Non-judgemental acceptance	0.01	0.13	0.01	0.11	0.92					
	Insight	0.05	0.12	0.04	0.46	0.65					
	Mindful presence	0.22	0.14	0.15	1.61	0.11					
	Extraversion	-0.03	0.08	-0.03	-0.33	0.74	7.74	0.60	0.36	0.23	0.56
	Agreeableness	0.11	0.11	0.09	0.98	0.33					
	Conscientiousness	0.44	0.13	0.30	3.46	0.00					
	Neuroticism	-0.43	0.12	-0.40	-3.60	0.00					
	Openness	0.01	0.11	0.01	0.08	0.94					

Hypothesis 3 was therefore partially accepted.

Discussion

Psychometric properties of scales

Exploratory factor analyses confirmed the factor structure for the three scales used in this study. Ang *et al.*'s (2007) factor structure and reliability of the Big 5 PT questionnaire was partially confirmed in this study. As with numerous publications within the South African context (c.f. Laher, 2010; Louw & Viviers, 2010; Morgan & De Bruin, 2010; Ramsay, Taylor, De Bruin & Meiring, 2005; Rothmann & Coetzer, 2002, 2003), the Big 5 PT questionnaire did not completely conform to the originally suggested factor structure (Costa & McCrae, 1989). Ten items were removed in order to enhance the factorability, factor structure and, by implication, the reliability of the questionnaire. These items were predominantly within the conscientiousness and agreeableness scales, similar to the findings of Ramsay *et al.* (2005). Further investigation into the conceptualisation of the 'African personality' (Ramsay *et al.*, 2005) is needed in order to enhance the factorability of the questionnaire.

Similarly, the FMI-14 MI scale produced a structurally sound and reliable three factor model for MI within the sample group after two items (12 – 'I am impatient with myself and with others'; 13 – 'I am able to smile when I notice how I sometimes make life difficult') were removed. Although the questionnaire produced reliable results, it provided evidence for a two, three and four factor structure. This is in support of the Sauer *et al.* (2011) as well as Walach *et al.*'s (2006) findings. The FMI has not been extensively used within the South African environment, and as such no comparisons could be made on a national level.

Finally, the LOQ produced a three factor model similar to various South African studies (c.f. Herbst, Coetzee & Visser, 2007; Van Schalkwyk & Rothmann, 2008) and produced acceptable reliabilities. Although the factor structure was confirmed, some of the item loadings are not in line with Antonovsky's (1987) proposed factor to item loading structure. Three of the original comprehensibility items (1, 10, 15, 26) loaded on manageability. Similarly, two items traditionally associated with manageability (18, 27) loaded on comprehensibility. It would therefore seem that the concepts of comprehensibility and manageability may be intertwined in the current sample. Antonovsky (1987) did however argue that there may be shared variance between the three components of SOC, which could provide an explanation for the unintended overlap. Van Schalkwyk and Rothmann (2008) argued that the LOQ may present an unstable factor structure within the South African context and that further research is required to refine the measurement of SOC within South Africa.

Relationships amongst variables

The product-moment correlational analysis between PT, MI and SOC showed that significant relationships between these variables exist. Furthermore, canonical correlations showed that a combination of lower levels of manageability, non-judgemental acceptance, insight and mindful presence, coupled with higher levels of comprehensibility is associated with lower levels of agreeableness and openness as well as higher levels of neuroticism within this sample.

This implies that women within this sample, who perceive the world to be structured, ordered and consistent are likely to show the ability to cope with life-related demands. This may be as a result of the ability to accept life-related events without judgement which related to a deeper level of understanding of these challenges (Chavers, 2013). Furthermore, high levels of comprehensibility were also associated with agreeableness and lower levels of neuroticism within the sample. Individuals who perceived life to be predictable and consistent could experience higher levels of emotional stability (i.e. low neuroticism) and could be less prone to present irrational beliefs/ideas and cope effectively with life's challenges (Feldt, Metsäpelto, Kinnunen & Pulkkinen, 2007). Comprehensibility was also associated with the agreeable PT. This may be because individuals who felt in control of life and the associative demands are more likely to be sympathetic to others (Feldt *et al.*, 2007).

Similarly, non-judgemental acceptance, insight and conscientiousness were positively associated with manageability. Individuals who believe they can cope with life demands are also able to unconditionally accept these events, without judgement, and are likely to present with deeper levels of understanding of their causality and implication. This is consistent with previous research which found that MI positively relates individual health-related outcomes (Dobkin & Zhao, 2011). Applied research suggests that MI could act as a positive contributor to the activation of internal resources needed to enhance SOC (Carmody, Reed, Kristeller & Merriam, 2008).

In contrast, neuroticism was negatively associated with manageability. Individuals that are unable to cope with life demands are also likely to present with higher levels of emotional instability (i.e. neuroticism). This is in line with the findings of Feldt *et al*. (2007). Individuals who were not emotionally mature and unable to manage their emotions, were more likely to perceive stressful events as unmanageable (Feldt *et al*., 2007; Hochwälder, 2012). This study negates the findings that neuroticism and SOC lay on a continuum (Feldt *et al*., 2007; Gibson & Cook, 1996). Although comprehensibility and manageability are negatively related to neuroticism, meaningfulness showed no significant relationship thereto. Also, the strength of the negative relationship between components of SOC and neuroticism within this study (comprehensibility: -0.39; manageability: -0.46) is not strong enough to justify the assumption that these variables are presented on a continuum.

In this study, the three components of MI, non-judgemental acceptance, insight and mindful presence, were positively related. This is in line with Sauer *et al*. (2011) and Walach *et al*.'s (2006) conceptualisation who argued that these components have shared variance. As with the components of SOC, agreeableness correlated positively with the three components of MI. It would seem as though individuals who live in and appreciate positive moments in the present are able to manage interpersonal relationships well. Living in the present may accentuate the immediate importance and value of interpersonal relationships. Neuroticism related negatively with a relatively large effect to both non-judgemental acceptance and insight. By implication, individuals presenting with low levels of emotional stability (i.e. high neuroticism) may be more judgemental and show lower sympathy or empathy towards others. This may be as a result of how neuroticism overwhelms an individual with emotions in the present whereby one would be unable to appreciate the perspectives of others.

Within this sample, only four PT related significantly to the other. Extraversion related positively with openness. This implies extraverts are more likely to be flexible and open to new experiences than introverts. Furthermore, agreeableness related negatively to neuroticism with a large effect. This research supports the findings of Feldt *et al*. (2007). By implication, those who are able to foster and build positive relationships are also able to manage their emotions and emotional reactions to situations.

Personality traits and mindfulness as predictors of sense of coherence

The final hypothesis of this study was the extent to which PT and MI acted as predictors of SOC. The results of the first step of the multiple regression analyses showed that only insight acted as a predictor for comprehensibility and manageability. The results of the second step of the multiple regression analyses showed that when entering PT into the equation, only neuroticism acted as a predictor of comprehensibility and that manageability is only predicted by conscientiousness and neuroticism. Furthermore, neither MI nor PT could predict meaning within this sample.

This implies that, in isolation, insight could accurately predict a portion of comprehensibility and manageability. Therefore, if insight could be developed in women within this sample, it should have an effect on the occurrence of two of the components of SOC. It is obvious that insight impacts on the way how a person understands the world and on how an individual copes with challenges.

Similarly, in relation to MI, neuroticism could predict lower levels of comprehensibility and manageability within this sample. This could be because neuroticism has repeatedly been shown as a PT that is associated with negative emotions, distress and depression and with a range of psychopathology (Latzman & Masuda, 2013) which might impact negatively on the way of understanding the world and coping with challenges.

Conscientiousness, in relation to MI, could also act as a predictor for manageability. Conscientiousness as an impulse control ability and the ability to pay attention to detail could, in relation to MI, be a predictor for manageability, because of the assumption that being present, aware and conscientious might provide the individual with the awareness of the needed coping resources. The detailed perception helps the individual to activate the needed resources at the right point in time.

Practical implications for Human Resource Management

The findings confirm that certain PT (conscientiousness, neuroticism) and insight (as a component of MI) could predict comprehensibility and manageability (as components of SOC) within a sample of female employees in HEIs and thereby impact on organisational health and well-being on a broader scale. The practical implications for HRM might include to value PT and MI as strengthening resources to predict comprehensibility and manageability (SOC). Therefore, HRM should focus on PT, MI and SOC in selection processes, in training and in developing careers of women, particularly focussing on these components of sustainable mental health and well-being. Human Resource (HR)

managers should be aware of these components and need to be trained to understand the intrapsychological impacts of mental health and well-being in the workplace.

Limitations

The first limitation relates to the cross-sectional research design, which could provide no indication of causal relationships. Future studies should aim to utilise longitudinal research designs to provide a deeper understanding on the causality of the relationships. Similarly, a predictive validity design was not utilised, which may have affected the magnitude of the correlation coefficients. Secondly, the sampling method may have attributed to positivity bias whereas a random sampling technique could have been used to enhance the generalisability of the results and representativeness of the sample. Thirdly, given the nature and availability of the sample, future studies should utilise alternative distribution methods such as user-friendly online surveys hosted on a neutral webserver. Fourthly, the relatively small sample size limits the type of statistical analysis which could be used to analyse the data. Future studies should aim to increase the sample size to at least 350 in order to utilise structural equation or latent variable modelling. The low response rate affects the generalisability of the results. Fifthly, it is suggested that a thorough investigation into the psychometric properties of the FMI-14 be conducted to establish the reliability and validity of the instrument in a multi-cultural southern African context. Therefore, the relationship between PT, MI and within HEIs should be studied within larger, stratified-random samples through utilising predictive validity designs. Sixthly, given the nature of the demographic and biographic position of the sample, a clear cultural bias is present. The results should therefore be interpreted against this backdrop.

Conclusion

The aim of this study was to investigate the relationship between PT, MI and SOC of women working in HEIs in South Africa. The results indicate that all the measuring instruments were reliable sources of information to address the primary aim of this project. With a few exceptions, correlational analysis produced both practically and statistically significant relationships between the various components of personality, MI and SOC within this sample. The results of the canonical correlations indicated that approximately 51.51% of the variance could be explained by the combination of lower levels of manageability, non-judgemental acceptance, insight and mindful presence, coupled with higher levels of comprehensibility, which are associated with lower levels of agreeableness and openness as well as higher levels of neuroticism within this sample. Finally, hierarchical multiple regressions indicated that only certain PT (conscientiousness, neuroticism) and insight (as a component of MI) could predict comprehensibility and manageability (as components of SOC) within a sample of female employees HE environments.

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An organisational coherence model to maintain employee contributions during organisational crises

Authors:
Hendrik J. Pelser[1]
Anita Bosch[1] ⓘ
Willem Schurink[1]

Affiliations:
[1]Department of Industrial Psychology and People Management, University of Johannesburg, South Africa

Corresponding author:
Anita Bosch,
anitab@uj.ac.za

Orientation: Crises that threaten an organisation's continued existence cannot be seen in isolation when considering the perception of threats to individual job security. These threats often go hand in hand with employee panic.

Research purpose: The aim of this study was to establish a model to assist organisations in managing employee emotionality and panic during times of crisis.

Motivation for the study: Environmental crises threaten organisations' existence, threatening employees' livelihood and resulting in employee panic. Panic reduces employees' contributions. Organisations that are successful harness employee contributions at all times.

Research design, approach, and method: A modernist qualitative research methodology was adopted, which included a case study as research strategy, purposive sampling to select 12 research participants, semi-structured interviews for data gathering, focus groups for data verification, and the use of grounded theory for data analysis.

Main findings: An organisation's ability to manage employee panic depends on the relationship between the foundational elements of authentic leadership, crisis readiness, resilience practices, versatile and committed talent, strategic management, quality management, and coherence actions taken during the crisis, which include crisis leadership, ongoing visible communication, mindfulness, work flexibility, and decisions based on the greatest financial need and social support.

Practical/managerial implications: The study provides a best-practice option for managing emotionality during crises for the case organisation and other organisations within the vehicle components and other manufacturing industries.

Contribution/value-add: The Coherence Hexagons Model is presented as a tool to manage employee panic during crisis.

Introduction

Key focus of the study

'I couldn't sleep last night but stayed up talking about what was going to happen'. 'It is terrible. Death. It's like a massive earthquake'. A person can be forgiven for thinking that these are lines from a disaster movie. The comments are, in fact, from Lehman Brothers employees Duo Ai and Kirsty McCluskey after the news of the potential collapse of the bank broke (Teather, Orr & Hopkins, 2008, p. 1). These are also the kind of reactions that may become commonplace in the future as the pressure on organisations increases because of higher levels of competition and environmental volatility. Unmanaged, these reactions could spread panic through organisations, which, in turn, could cause their collapse. Modern managers therefore have a duty to find ways of dealing with emotionality and panic.

Background

The metaphor of the 'perfect storm' has been proposed to capture the essence of the post-2000 business environment (Dotlich, Cairo & Rhinesmith, 2009). Contributing to the perfect storm environment is the increase in the scale of crises. The simple truth is that modern crises have no respect for national boundaries (Beck, 1992). The interconnected nature of the modern globalised society exposes a variety of systems to what is termed *the transboundary crisis* (Boin, 2009). Boin (2009) described a transboundary crisis as one with no clear beginning or end that threatens a range of system elements in the absence of clear-cut plans of action to remedy the consequences.

Organisations and their leaders operate within a crisis-driven context, where discontinuity and unpredictability are the norm. The leadership reality is one that is increasingly complex, diverse, and uncertain. The world has become a place where it is impossible for leadership to keep up with an operating environment that is flat, fast, interdependent, and risky (Dotlich *et al.*, 2009). Crises are, in essence, a business reality, inseparable from day-to-day operations (Elsubbaugh, Fildes & Rose, 2004).

Purpose

The motivation for the study was based on the contention that environmental crises will continue to threaten organisations' existence, posing a threat to employees' livelihood resulting in panic. Unmanaged employee emotionality and panic have the potential of putting a marginal business over the edge.

It is in light of these issues that the primary research question was: Which organisational elements contribute to or detract from coherence during perceived organisational crises?

The following supporting sub-questions apply: Which emotions do employees display during perceived crises? Which organisational elements contain or fuel employee emotionality and panic during perceived crises?

Trends gleaned from the literature

Framed by a set of circumstances where the environment will vacillate between crises, organisations and their leadership have to carve a market niche to serve a customer base that is increasingly informed and less loyal (Alrubaiee & Al-Nazer, 2010). In order to cope with these potential environmental changes, organisations have embarked upon strategic management. Strategic management is the integration of functions and resources with strategies to maintain alignment with the external environment and ensure future return in competition and stakeholder value (Ehlers & Lazenby, 2010).

Whereas strategic management's focus is on the offensive aspects of competing in the marketplace, crisis management centres on the defensive capabilities of the company (Penrose, 2000). The aim of crisis management is surviving events threatening an organisation's existence (Mitroff, Diamond & Murat Alpaslan, 2006), as opposed to the strategic management focus of dealing with opportunities and threats.

The overarching theme of crisis management activities is the use of formal organisational arrangements – systems, structures, and procedures – to secure the continued survival of an organisation during and after a crisis (Elsubbaugh *et al.*, 2004; Massey & Larsen, 2006; Mitroff *et al.*, 2006). The potential shortfalls of the formalised approach to crisis management is highlighted by the definition of a crisis provided by the London School of Economics' Crisis States Research Centre, which suggests an inability on the part of

institutions or organisations to cope with environmental challenges powerful enough to disrupt and even threaten the continued existence of established systems (Porfiriev, 2005).

Threats to established systems that have the potential for creating real panic are those where the logic in the universe is brought into question, because understanding and processes linked to understanding collapse (Weick, 2006). Weick (2006) contended that the elements that hold an organisation together are, in many instances, far more tenuous than managers believe, especially when people are required to fulfil unfamiliar roles in completing ambiguous tasks, in circumstances where key roles are neglected. These kinds of threats have the potential to cause significant psychological suffering (Miller, 2006). This aspect of broader organisational crisis management has largely been neglected in research.

Research design

Research approach

Elliott, Fischer and Rennie (1999) stated that qualitative research aims to understand incidents, encounters, and actions engaged with, and lived through by an individual. The focus of qualitative research is therefore to create an understanding of the phenomenon being investigated, by incorporating the perspectives of the participants (Elliott *et al.*, 1999), that is, elucidating human environments and experiences (Hay, 2005).

A number of factors played a role in opting for a modernist qualitative approach in the present study. These included our need to reflect individual experiences, the ideal of creating accurate theory based on an in-depth literature review, the use of multiple methods and rigorous questioning and analysis, and accounting for a full range of eventualities in a structured manner.

Research strategy

A case study as research strategy was used. Case studies are, first and foremost, descriptive; secondly, they allow for the generation of rich information about people and particular contexts; and, finally, they create opportunities for the emergence of new ideas and hypotheses (Terre Blanche & Durrheim, 2002).

The value of using a single exploratory and intrinsic case study lies in its ability to draw attention to pertinent aspects of human behaviour (Schram, 2006). The value of using an intrinsic case study has to be questioned, especially if one considers its limitations in terms of transferability and in creating theory (Stake, 1995). Silverman (2010), however, countered this opinion by providing the following as guidelines to producing explanations that are transferable: firstly, combining qualitative research with quantitative measures of populations; secondly, following a process of purposive sampling, informed by time and funds; thirdly, using theoretical sampling; and finally, using a model to analyse the case, which shows cross-case transferability.

We followed a single exploratory and intrinsic case study method to examine and describe the reactions of staff to the significant drop in demand for automotive products, with the intention of identifying those organisational realities that impact these reactions.

Research method

Research setting

The case organisation was a privately owned engineering firm that provides components and equipment locally and globally to the automotive, construction, and related industries. We refer to the firm as 'David', based on comments from a number of research participants who described the firm as small but tough.

Employees of David live by the motto of 'Our customers come first'. Managers, employees, and teams alike are held accountable for their performance with continuous improvement. They interact on a first-name basis, from the CEO to the sweeper. This, however, does not suggest a lack of respect. Finally, an open-door policy exists at all the management levels.

The year 2011 posed significant challenges to the continued survival of David, which accurately reflects a crisis-driven environment. The specific events that had caused this included the tsunami that hit Japan in March, the floods in Thailand between March and August, air travel over Europe being disrupted by the eruption of Iceland's Grimsvotn volcano in May, strike action locally affecting international freight and transport, snowfalls in August causing the road between Gauteng and Durban to be closed, and global shortages of required raw materials such as nylon. The crises David faced had impacts both individually and collectively on its performance.

Entrée and establishing researcher roles

We established initial contact with the managing director of David. Formal permission to commence with the research was granted in writing. Acknowledging and accounting for the influence of the researcher, although important, is not sufficient to ensure quality research. In light of this, we treated the information that the research participants offered with an open mind. We also subjected our own preconceptions to ongoing, intense assessments, and we intermittently discussed key research decisions amongst ourselves and a person previously employed by David, which served as peer debriefing exercises (Terre Blanche & Durrheim, 2002).

Sampling

Although there is no consensus regarding the correct qualitative sample size, the ideal is to strike a balance between a population not too large to prevent the extraction of thick, rich data, yet large enough to allow 'for data saturation (Flick, 1998; Morse, 1995), theoretical saturation (Strauss & Corbin, 1990), and informational redundancy (Lincoln & Guba, 1985)', originally stated by Sandelowski in Onwuegbuzie and Leech (2007, p. 242). We decided to select employees who potentially had direct and intimate knowledge of the potential ramifications of the recession. Furthermore, we selected employees across all functional areas, and drew participants from the operations and management structural levels. We took special care to include employees who were involved in consultative processes with management.

Whereas the initial sampling we applied was purposive, we thereafter used theoretical sampling, to allow for groups or categories relevant to the research questions, as well as attempts to explain the data (Silverman, 2010). We also used chain-reference sampling to identify new categories of data, until saturation was reached. Here, one identifies critical cases or informants who are well informed, that is, who have a great deal of information about a phenomenon (Cohen & Crabtree, 2006). We asked the managing director and interviewees to identify individuals who could contribute critically pertinent information.

In light of the above, the research participants indicated in Table 1 were drawn from the three main levels of the organisation's structure.

Data collection methods

In line with the usage of multiple data collection methods in the modernist tradition, we used interviewing, focus groups, documents, and participant observation.

Face-to-face interviews: Our primary method of data collection was unstructured interviews, utilising an open-ended question format. Also referred to as in-depth, intensive, focused, or ethnographic interviews, this format allows one to obtain detailed information, clarify reasons for behaviour, and uncover the issues behind interviewees' answers, opinions, feelings, or emotions (Van Rensburg *et al.*, 2009).

We first conducted a pilot interview with one participant. Thereafter, we adjusted the interview guide to ensure that information-rich data could be collected during the interviews. The three main open-ended questions that were posed to the interviewees were:

TABLE 1: Profile of research participants.

Gender	Ethnicity	Age group	Tenure	Section
Male	Indian	40–50	10–20 years	Production
Male	Indian	40–50	10–20 years	Production
Male	Indian	40–50	10–20 years	Training
Male	Indian	20–30	0–5 years	Production
Male	Indian	30–40	5–10 years	Production
Male	Indian	20–30	5–10 years	Production
Female	Indian	30–40	5–10 years	Production
Female	Mixed	40–50	5–10 years	Production
Male	Indian	20–30	0–5 years	Production
Female	Indian	40–50	10–20 years	Production
Female	African	30–40	5–10 years	Production
Male	African	20–30	5–10 years	Production

1. What do you recall about the period in 2011, between the tsunami hitting Japan and before the floods in Thailand? What was the impact on the organisation and its people?
2. How did the employees respond to this impact? What did the employees do? How did they behave? What emotions did they display?
3. How did management respond to these events? What did the managers do? How did they behave?

Focus group interviews: Focus groups are particularly useful for providing qualitative data. The interaction is considered more natural than interviews, as they reflect the real-life influence that people have on one another (Krueger & Casey, 2000). We specifically used focus groups, firstly, to confirm our interpretation of the findings from the interviews and, secondly, to construct deeper meaning from the emerging findings. To ensure anonymity, the different levels of employees were kept apart in the focus groups, and we did not share the original interpretations or words used during the interviews.

Additional data sources: A number of additional sources were used, such as process documents detailing issues like tracking and correcting faults, strategies related to cost saving and efficiency, and time sheets. We were also taken on a tour of the facility. We took particular interest in flowcharts indicating the manufacturing processes, the use of buckets to measure waste at the end of shifts, and the large number – comparatively speaking – of female operators on the production line. We also noted other tours being conducted. David's management actively promoted information and knowledge sharing with other manufacturers as part of their own skills development. This data were captured as field notes.

Recording of data

When recording data, the following are important considerations: the organisation under study, data entry, data backup, and data safety (Bogdan & Biklen, 2007). All the interviews and focus groups were recorded using two separate digital devices.

Transcribed interviews: Interviews were transcribed. In order to accurately capture the perceptions, emotions, actions, and words of the interviewees and focus group participants, we used field notes to supplement the digital recordings (Hahn, 2008). The field notes and voice recordings were used jointly in finalising the transcripts. We paid specific attention to capturing the full narrative of the recording during the transcription process, making additional annotations to reflect pertinent non-verbal communication such as emotions and facial expressions. Insights recorded during the interviews and focus groups on the written notes were included in the transcripts.

Field notes: Field notes are primarily used to account for the researcher's experiences in collecting and reflecting on data (Bogdan & Biklen, 2007). We attempted to accurately reflect, through the field notes, from both a descriptive and reflective point of view, the content of both the focus groups and the interviews. We kept these field notes in a transcript file.

A personal log was completed directly after each interview or focus group, in order to assess and refine the data collected during the interviews. We also maintained an analytical log to keep track of any ideas that related to theories encountered in literature (Minichiello, Timewell & Alexander, 1995).

Data analysis: We selected the process proposed by Merriam (2009) to complete the data analysis, namely category construction, sorting categories and data, naming the categories, and deciding on the number of categories (Merriam, 2009, pp. 178–193).

The process of constructing categories starts with studying the transcripts, field notes, and any other documentation associated with the interviews. The research question acts as the backdrop against which initial observations are noted. The codes aim to highlight data that may have specific value beyond the mere description of the setting within which the data were obtained (Lowe, 1996). Our open coding involved coding by sentence or paragraph, using interview transcripts. We used the open codes as the first step in constructing categories.

Next, we reviewed the transcripts in order to identify common descriptions, and to group these together. This grouping process can be referred to as *axial coding*. Strauss and Corbin (1990) explained axial coding as the process whereby data are connected in fresh ways, under created categories or subcategories.

We repeated the process described above with all the sets of interview data, with the aim of identifying patterns and regularities, which became the overarching categories and themes within which items were logically grouped (Merriam, 2009, p. 181). The category itself is an abstraction drawn from the data, and, in essence, takes on a life of its own, separate from the data (Lincoln & Guba, 1985).

Even though naming the categories is largely an inductive process, the reality is that this is guided by the study's purpose, a researcher's mindset and current knowledge, and the views of the research participants as interpreted by a researcher. We allocated names to the categories that reflected the detail we saw in the data.

We used Merriam's (2009) suggested four guidelines for creating comprehensive and descriptive categories. Firstly, the frequency with which something is raised, that is, the number of times an item is mentioned by research participants, guides the development of a category. Secondly, audiences may indicate the categories they consider to be more credible. Thirdly, some categories may, on the basis of their uniqueness, be retained. Finally, some categories may be unique in their ability to provide unique insights into common problems.

Strategies employed to ensure quality data

Sharing, interpreting, and representing other people's experiences is, at the same time, a great privilege and a responsibility (Stake, 2010). In order to increase understanding

of the complex phenomena encountered (Malterud, 2001), we used the four types of triangulation for purposes of credibility, transferability (Lincoln & Guba, 1985) and dependability (Ryan-Nicholls & Will, 2009) in the following ways (Pelser, 2014):

- Data triangulation: We used a number of focus groups to verify the information obtained during the interviews.
- Investigator triangulation: We discussed the interview records amongst ourselves, to ensure the accuracy of our interpretation of the data.
- Theory triangulation: We used existing models in the area of crisis- and panic management to deductively assess the accuracy of our interpretations.
- Methodological triangulation: In addition to the information obtained from the interviews and verified via the focus groups, we verified the accuracy of the outcomes with industry experts.

Findings

The period researched – between the tsunami in Japan in March of 2011 and the floods in Thailand in September 2011 – and the objectives of the research, guided the questions of the initial interview guide. The coding process progressed from open coding through axial coding, resulting in 21 categories across the four data sets, as illustrated in Table 2.

We combined the categories through the process of selective coding to create the initial story line. Selective coding is the process through which theory is integrated and created (Strauss & Corbin, 1998). Developing theory starts with the generation or clarification of a storyline (Pandit, 1996). The analysed storyline becomes the core category of the theory being developed.

We believed that it was apparent from the sheer volume of responses that was grouped into the *ongoing communication* category that the core category would include a reference to this process. The second element that we believed needed to be linked to the process of ongoing communication was that of transparency. The central category was described as follows: *Ongoing visible communication, trust, and transparency are central to managing employee emotionality during organisational crises.*

Grounded theory has as its essence the emergence of theory from raw data. Strauss and Corbin (1990), however, considered it appropriate to use those resources that relate to emerging theory as a way of validating the accuracy of findings.

As the basis of grounded theory is the emergence of theory from research, we opted to conduct the review by theme or

construct. Mouton (2009) indicated this option as appropriate for both quantitative and qualitative exploratory studies. The central category we developed via the selective coding process, as well as the categories and themes that emerged from the open- and axial coding processes, i.e. the emergent theory, framed the review. From the data, we developed the Organisational Coherence Hexagons Model (Figure 1).

The first column of Table 3 presents a summary of our first-order constructs, derived empirically; the second column presents the relevant second-order constructs, drawn from literature; and the third column indicates the elements included in the model to account for the first- and second-order constructs.

Discussion

The Coherence Hexagons Model identifies the organisational aspects that have to be in place to manage emotionality and maximise employee contribution during times of crisis. These were expanded on in Table 3.

Why hexagons?

In his writings, Charles Darwin referred to the honeycomb as a masterpiece of engineering, maximising levels of efficiency in terms of labour and wax (Zhang, Duan, Karihaloo & Wang, 2010). Pappus of Alexandria, the 4th-century geometer, suggested that the value of the hexagon lies in the fact that it holds more honey for the same amount of wax used than any other shape (Zhang *et al.*, 2010). In addition to their levels of efficiency, beehives are, by their very nature, also incredibly robust and resilient.

Modern organisations, as do modern employees, have to be efficient, robust, and resilient to survive the crisis-driven environment. The Coherence Hexagons Model identifies the elements required to promote the development of these characteristics.

In addition to suggesting efficiency, robustness, and resilience, the hexagon shape also allows for each of the major elements to be expanded on through the use of additional interconnecting hexagons. The hexagons could be at the centre or form part of an evolving theory.

Interpreting the hexagons

Several elements have to be embedded in an organisation to provide the foundation for managing emotionality and maximising contributions during times of crisis. These elements, although represented as different sides of the

TABLE 2: Data categories.

Data set	Questions	Representing	Open coding themes	Axial coding themes	Categories constructed
1	1 & 2	Impact of crisis event	41	10	7
2	2 / 2	Employee actions during crisis	13	4	3
3	3 & 4	Management actions during crisis	50	12	4
4	5, 6 & 7	Organisational elements that contributed to effective crisis management actions	48	13	7

TABLE 3: Elements of the Coherence Hexagons Model.

First-order constructs	Second-order constructs	Model elements to accommodate or address construct
Emotionality	The components of the BASICS model indicate the areas where crises impact people, that is, behavioural, affective, somatic, interpersonal, cognitive, and spiritual (Echterling, Presbury & Edson Mckee, 2005).	Coherence hexagons
Concerns about job security	Two universally consistent human needs can be identified: physical survival and autonomy (Doyal & Gough, 1991). The knock-on effects of unemployment or loss of income include fewer resources for food, education, and health (Barrientos & Hulme, 2008; Fildis, 2011). Job loss is associated with trauma and stress, which not only impact the individual, but also the quality of the relationships with his or her spouse and children (McKee-Ryan, 2006).	Versatile, committed talent
Concerns about loss of income	Poorer people have fewer or inadequate buffers to protect them from long-term job loss (Fildis, 2011). In general, South Africans spend more than they save (Pasquali, Aridas, Bedell & Magno, 2012; SASI, 2013).	Versatile, committed talent Work flexibility
Rumours	Rumours are carried through the so-called 'grapevine' (Robbins, Judge, Odendaal & Roodt, 2009). The greater the thematic importance of the rumour is, the greater the level of rumour mongering will be (Allport & Postman, 1947; Rosnow, 1991). Managers need to monitor the grapevine to control the spread of rumours (Archer, 1992; Robbins et al., 2009).	Ongoing, visible communication
Impact on productivity	Organisational consequences of crises include: a negative impact on the business climate and culture (Miller, 2006), paralysis (Jun & Myung, 2001; Roux-Dufort, 2009), and financial setbacks (Kim, 2010; Miller, 2006). The behavioural symptoms of stress impact organisational productivity and efficiency (Cole, 2010; Grobler et al., 2011; Robbins et al., 2009).	Quality management Mindfulness
Financial need of individual employees	The impact of a loss of income on female workers appears to be more significant and may be as a result of gender inequalities through perceived income generation roles of men and women in society (Fildis, 2011; Holdsworth, 2011). There is a positive relationship between home ownership and a sense of personal identity, belonging, self-worth, and self-esteem (Clapham, 2005; Holdsworth, 2011; Mallett, 2004; Massachusetts Coalition for the Homeless vs. Dukakis, 1986).	Financial need
Availability of information	The Internet is to be considered both a threat and an ally in crisis management (Gonza´lez-Herrero & Smith, 2008). When attempts are made to find information on a crisis, employees are naturally inclined to turn to networks and contacts with which they are familiar. These include social media such as Facebook and Twitter (Dynes, 1994; Gahran, 2008; Jennex, 2013; Meier, 2013).	Ongoing, visible communication
Seeking alternatives	In order to resolve crises effectively, organisational teams are required to mobilise additional resources (staff, money, and advice), which are often not at the disposal of the organisation (Choi, Sung & Kim, 2010). Employees' survival strategies during crises are aimed at allowing them to continue working, including finding alternative means of income, walking to work to save costs, and borrowing money from family and friends (Chagonda, 2012; Hungwe, 2011).	Versatile committed talent Work flexibility
Spirituality or religiousness	People experiencing stress turn to religion (Carver & Scheier, 1999; Gall & Grant, 2005; McRae & Costa, 2006; Samson & Zerter, 2003). People spontaneously turn to prayer to cope with problems (Barnes, Powell-Griner & Nahin, 2004; McCaffrey, Eisenberg, Legedza, Davis & Phillips, 2004; cited in Lambert, Fincham & Graham, 2011; Pargament, Ano & Wachholtz, 2005). Emotional resilience can be linked to spirituality and religiousness (Greeff & Loubser, 2008; Hadzic, 2011; Moreira-Almeida, Neto & Koeig, 2006; Walsh, 2003). There is a clear link between spirituality and coping with life crises (Moreira-Almeida et al., 2006).	Social support
Ongoing communication	Establishing and training a multi-departmental crisis management team. A crisis communication plan to lend legitimacy to crisis responses (Massey & Larsen, 2006; Seeger, 2006). Actions taken must conform to the expectations of society (Alpaslan, Green & Mitroff, 2009).	Ongoing, visible communication
Commitment to seeking alternatives	Elements that are substitutable during times of crisis (Hellriegel et al., 2007).	Authentic leadership Strategic management Crisis leadership
Empathy	Emotional quotient (Cole, 2010; Echterling et al., 2005; Feldman & Kuyken, 2011; Goleman, Boyatzis & McKee, 2002).	Authentic leadership Social support
Transparency	Stakeholders expect accountability and transparency in crisis responses (Florini, 2007; Goleman et al., 2002; Grobler et al., 2011; Padgett, Cheng & Parekh, 2013; Silver, 2005; Ulmer, Sellnow & Seeger, 2007).	Authentic leadership Resilience practices
Crisis mindset	Modern organisations are considered open systems operating at the edge of chaos (Echterling et al., 2005). Living with risk is a defining reality of modern times (Hinchcliffe & Woodward, 2004). The role of leadership is to prepare an organisation for the unexpected (Jennings, Castro & Smith, 2005). Leaders have to anticipate and display an awareness of unexpected events (Weick & Sutcliffe, 2001).	Crisis readiness
Individual or organisational success link	Employees who feel that they belong to the organisation tend to cope better during times of crisis (Felicia & Ioana, 2012). Employees who believe they have greater control over their lives at work can, in a sense, protect their own interests and reduce the risk of opportunistic action on the part of management (Singh, 2009; Whitener & Brodt, 1998). The process of talent management goes hand in hand with giving employees greater control over their lives at work (Grobler et al., 2011). Organisational incentive plans aim to link a proportion of employee compensation to the performance of teams and, ultimately, to the entire organisation (Grobler et al., 2011).	Versatile, committed talent
Continuous improvement	The process of continuous improvement is an essential strategy to counter the Chinese strategy of cost innovation (Dotlich et al., 2009). Continuous improvement is the ongoing process of frequent, small, and evolutionary enhancements made to organisational practices, processes, products, and services (Cole, 2010). Three interrelated variables form the cornerstone of an innovative organisation: structure, culture, and human resources (Dotlich et al., 2009).	Quality management

TABLE 3 (Continues...): Elements of the Coherence Hexagons Model.

First-order constructs	Second-order constructs	Model elements to accommodate or address construct
Industry awareness	Identify the industry within which an organisation competes (Ehlers & Lazenby, 2010). Understand the characteristics that make the industry unique. Identify competitors in an industry (David, 2011). Identify the industry's key success factors (David, 2011).	Quality management
Diversification	Diversification is a sound option, only if the business can add real shareholder value through consistently high returns on investment, using synergies created by operating across different industries (David, 2011).	Crisis readiness
Multi-skilled, learning workforce	The transition from the concept of employment (having a job) to that of employability (Forrier & Sels, 2003; Fugate, Kinicki & Blake, 2004). Characteristics that are essential for successful modern employee are the speed, depth, and breadth of their learning (Grobler *et al.,* 2011). Versatilists are individuals who learn deeply and widely. Because of their learning, they are able to transition seamlessly across organisational boundaries (Friedman, 2005).	Versatile, committed talent
Leadership and trust	A decrease in management ethics and an increase in macro-environmental threats have necessitated authentic (positive) leadership (Cooper, Scandura & Schriesheim, 2005). The four components of authentic leadership are 'self-awareness, balanced processing, self-regulation, and relational transparency' (Zamahani, Ghorbani & Rezaei, 2011, p. 659). Dealing with a crisis is the responsibility of leadership. (Felicia & Ioana, 2012). Employees turn to leaders for assurance, clarity, and guidance when facing uncertainty, threats, and crises (Goleman *et al.,* 2002). Crisis leaders play a significant role in setting the appropriate tone during the crisis (Seeger, Sellow & Ulmer, 2003). Effective crisis management requires collective leadership. Psychological flexibility is a key characteristic of a crisis leader (Hayes, Strosahl & Wilson, 1999; Moran, 2011). Mindfulness is the ability to remain aware of the realities of a situation, and to isolate those environmental stimuli that are important in determining an appropriate response, and then persisting in the attainment of selected objectives (Moran, 2011). Resonate leadership has as its cornerstones the domains of 'emotional intelligence: self-awareness, self-management, social awareness, and relationship management' (Goleman *et al.,* 2002, p. 30).	Authentic leadership Resilience practices
Organisational resilience	Speed, transparency, and accountability are elements essential for organisational resilience.	Resilience practices
Culture, wellness and compensation	Workplace programmes to treat mental health symptoms, such as counselling and therapy, show a significant return on investment (Hilton, Scuffham, Vecchio & Whiteford, 2010). Essential elements of effective support during crises are: providing social support, creating opportunities for attachment, displaying empathy, establishing rapport, providing counselling and psychotherapy, and linking employees with a helper (Echterling *et al.,* 2005). Social support during times of crisis is essential. Pauchant and Mitroff (1988) identified positive self-regard corporations (PSRCs) as ideally suited to coping with crises. A PSRC considers itself in relation to the larger external environment; includes both its primary and secondary stakeholders in crisis management actions; views customers as an end in themselves, that is, as fellow humans with a range of needs; acknowledges crises and engage in a series of actions to counteract the threats the crisis poses as part of an integrated crisis management process; is acutely aware of its strengths and specific competencies, as well as its weaknesses and deficiencies; accepts that guilt and anxiety are natural responses to a crisis; embraces the paradoxes of competition and co-operation, as well as of individualism and collectivism; and its culture provides the framework within which employees learn and grow (Pauchant & Mitroff, 1988).	Versatile committed talent Strategic management Social support

hexagon, are interrelated. Leaders are therefore expected to ensure that these sides remain congruent with each other. The sides opposite each other indicate elements that feed into, and off of, each other.
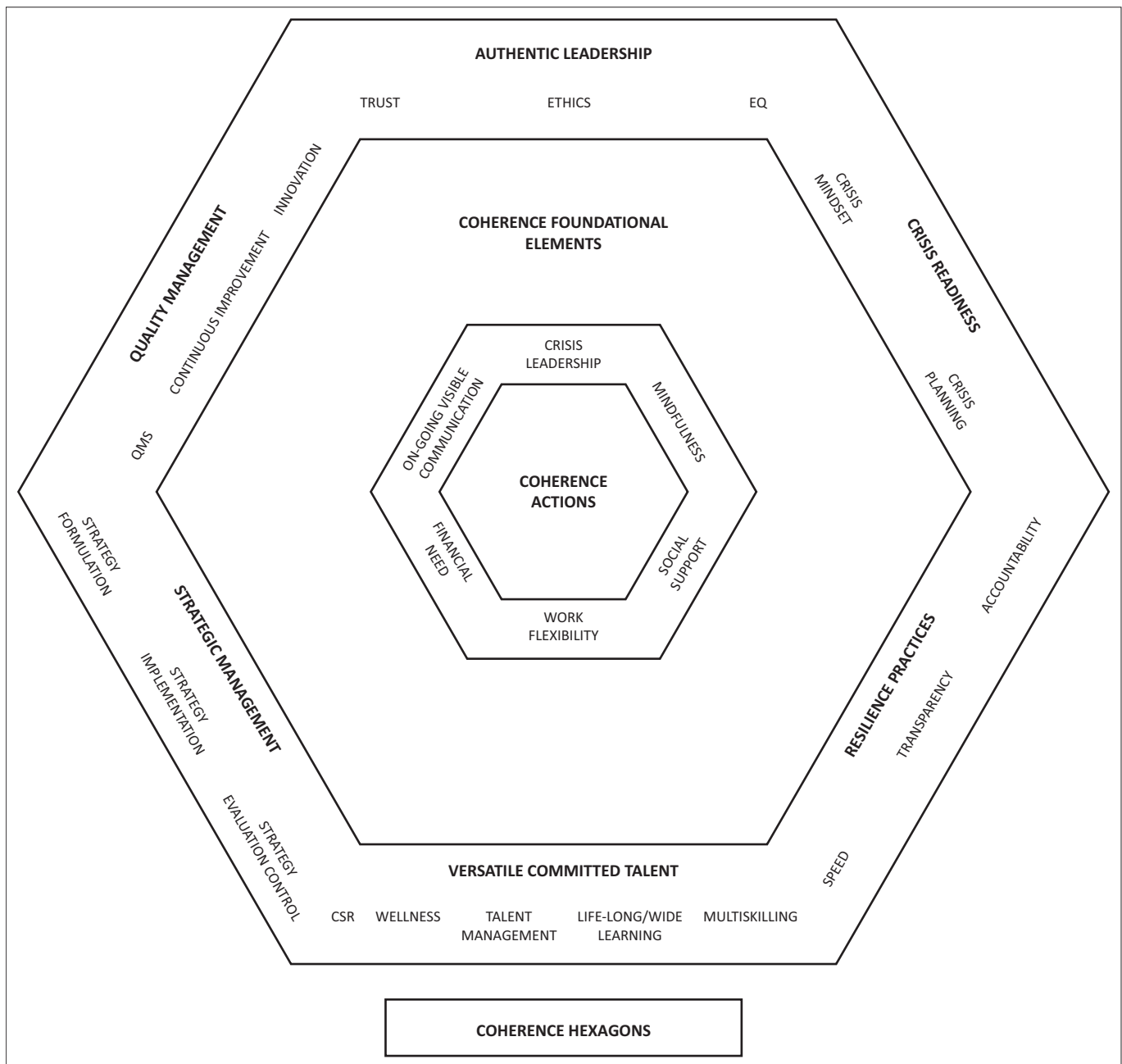
The coherence hexagons' foundational elements and sub-elements

Authentic leadership makes up the first side, and, because of its importance, is placed at the top of the hexagon. Modern employees expect to have leaders who they can trust, who maintain high levels of ethics, and who are emotionally intelligent. The presence of these qualities will ensure that employees respond positively during times of crisis when leaders deploy specific crisis-related actions.

Crisis readiness makes up the second side of the hexagon. Leaders who adopt a *mindset* of 'anything can happen' are in a better position to remain calm during crises. Calm leaders are essential to ensure calm employees. *Crisis planning* as the second sub-element of crisis readiness anticipates possible contingencies and provides plans of action to deal with these. These plans promote the perception of leaders being in control.

Resilience practices make up the third side of the hexagon. Organisations with a positive track record of effectively coping with, and rebounding from, previous crises have stories to share of 'how we have done this before'. These stories serve as a reminder to employees of the potential of the organisation to bounce back. Sharing these stories forms an essential part of managing emotionality. Resilience practices are underpinned by the sub-elements of *speed*, *transparency*, and *accountability*. *Speed* refers to issues that relate to, amongst others, the turnaround time to recover from previous crises. *Transparency* refers to the extent to which stakeholders are able to understand the internal workings of the organisation. *Accountability* refers to the extent to which leaders accept responsibility for their own actions.

Situated opposite to *authentic leadership* is *versatile, committed talent*. Along with *authentic leadership*, *versatile committed talent* represents the human element of the model. The sub-elements – *corporate social responsibility*, *wellness*, *talent management*, *lifelong or wide learning*, and *multiskilling* – each contributes to the presence of versatilists in the organisation. Versatile employees appreciate

AUTHENTIC LEADERSHIP

TRUST   ETHICS   EQ

INNOVATION

QUALITY MANAGEMENT

CONTINUOUS IMPROVEMENT

CRISIS READINESS

CRISIS MINDSET

COHERENCE FOUNDATIONAL ELEMENTS

QMS

CRISIS PLANNING

CRISIS LEADERSHIP

ON-GOING VISIBLE COMMUNICATION

MINDFULNESS

COHERENCE ACTIONS

STRATEGY FORMULATION

STRATEGIC MANAGEMENT

STRATEGY IMPLEMENTATION

FINANCIAL NEED

SOCIAL SUPPORT

WORK FLEXIBILITY

ACCOUNTABILITY

STRATEGY EVALUATION CONTROL

RESILIENCE PRACTICES

TRANSPARENCY

VERSATILE COMMITTED TALENT

SPEED

CSR   WELLNESS   TALENT MANAGEMENT   LIFE-LONG/WIDE LEARNING   MULTISKILLING

COHERENCE HEXAGONS

Source: Pelser, H. (2014). *An organisational coherence model to maintain employee contribution during organisational crises* (p. 174). Unpublished doctoral thesis, University of Johannesburg, South Africa

FIGURE 1: The Coherence Hexagons Model.

the importance of employability, as opposed to employment. Versatilists also panic less during crises.

Strategic management and *crisis readiness* make up the planning component of the model. *Strategy formulation,* as the first phase of the strategic management process, provides a number of essential factors to guide behaviour during crises, such as the organisation's vision, mission, and value statements, along with strategies to counteract the impact of crisis events. Developing and creating an appropriate culture and structure to, if necessary, frame crisis management activities form part of the *strategy implementation* phase. Finally, *strategic evaluation and control* is essential to verify whether the strategic plan has unfolded as intended, and if necessary to initiate corrective action.

Quality management and *resilience practices* combine to form the systems element of the model. *Quality management* and its sub-elements of a *quality management system*, *continuous improvement*, and *innovation* contribute to an organisation's competitive advantage. During times of crisis, these sub-elements are used to focus employees who are distracted because of stress and emotionality.

The coherence hexagons' action elements

The success of the coherence actions undertaken as per the central split hexagon depends on the quality of the foundational processes of the coherence hexagons. The elements are split into those that relate to the behaviour of crisis leaders and those that specifically accommodate the needs of employees.

Crisis leadership, as the top of the central hexagon and linked to authentic leadership, relates to those actions undertaken by those in authority to maintain employee contribution. Successful crisis leaders are calm and visible, and take charge of situations as they occur.

Intimately linked with crisis leadership is the need for those in positions of authority to engage in *ongoing visible communication*. Leaders are expected to remain up to date with events as they unfold, deal with rumours as they spread, and to truthfully communicate actions taken to deal with the crisis as it evolves.

Mindfulness is a practice that allows leaders and followers to focus on the immediate, despite the large number of emotional and other distractions that may compete for attention during times of crisis.

Intimately linked with the presence of versatile committed talent is the need for organisations to be flexible to accommodate and capitalise on these employees and their competencies. *Work flexibility* refers to the opportunities available to employees to move between sections in the organisation and/or to move to other organisations to make up for income lost as a result of actions like short time or layoffs. This aspect plays a key role in retaining talent in the long run.

Organisational crises, especially those with an economic basis, are often associated with actions such as short time and layoffs. Organisations can manage employee panic by basing their staffing decisions on the principle of greatest *financial need*. Employees who fall into the category of greatest financial need are often single parents or from single-income families.

Finally, people need to feel that they have someone in their corner during times of crisis. *Social support* can come in many forms, including prayer groups, counselling or therapy, and team members supporting each other. Organisations have to make these opportunities available during times of crisis.

Limitations of the study

Firstly, one of the potential drawbacks related to the selection of the research participants for the present study is that we drew people from different levels in the organisation's structure, that is, manager, group leader, team leader, and operator. Even though we did not observe anything in particular in this regard, the use of people who report to each other may have constrained the research participants in fully contributing during the interviews.

Secondly, a lack of generalisability is often considered the greatest drawback of using a single case study (Bryman & Bell, 2007). Even though some writers argue that the process of theoretical sampling should create a theory that is exportable (as opposed to generalisable) to situations where circumstances similar to the case exist (Flyvbjerg, 2006; Morse, 1999a; Popay, Rogers & Williams, 1998; Yin, 2003), we believe we have to acknowledge the limitations imposed by using a single research setting.

Thirdly, Merriam (2009) identified the selective use of data by the researcher and potential researcher bias because of researcher subjectivity as another limitation inherent in qualitative research. Even though we believe that, through the use of reflexive practices, peer reviews, member checks, peer debriefing, audit trails, and rich, thick descriptions, we may have addressed this issue, we acknowledge this as a potential limitation.

Fourthly, grounded theory is not immune to criticism. The most common criticism is a lack of scientific (deductive) analysis (Gasson, 2004) and its inability to render testable theory (Goldthorpe, 2000).

The final limitation relates to the actual outcome of the crisis period used to frame the study. The opportunities presented by the subsequent flooding in Thailand ensured a positive outcome. No jobs were lost, and additional overtime made up for loss of income. It would be naive not to think that the research participants' experiences may have been different, had the outcome been negative, that is retrenchments, et cetera.

Recommendations

Additional research needs to be conducted on the areas depicted on the external sides of the hexagon. The research should focus on identifying the support elements required in the areas of authentic leadership, crisis readiness, resilience practices, strategic management, and quality management. The research should be based within the context of the crisis-driven environment.

Another area of research could be the implementation of the Coherence Hexagons Model, specifically ways to diagnose an organisation's existing design and the processes to transform the organisation to meet the requirements of the model.

Finally, a study should be undertaken to identify those elements that signal coherence, that is, the point at which employee emotionality and panic have been addressed. At this stage, managers can refocus their leadership on addressing ongoing strategic and operational issues.

Conclusion

The world is changing at a rapid pace and turmoil is becoming the norm. The management of employee panic in times of crises is fast becoming one of the competitive advantages of any business. The Coherence Hexagon Model presented in this paper provides a practical way of addressing coherence when all else may seem out of control.

Acknowledgements

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The relationship between occupational culture dimensions and reward preferences: A structural equation modelling approach

Authors:
Mark Bussin[1]
Michelle Nicholls[1]
Ronel Nienaber[1]

Affiliations:
[1]Department of Industrial Psychology and People Management, University of Johannesburg, South Africa

Corresponding author:
Mark Bussin,
drbussin@mweb.co.za

Orientation: Reward has links to employee attraction and retention and as such has a role to play in managing talent. However, despite a range of research, there is still lack of clarity on employee preferences relating to reward.

Research purpose: The purpose of the research was to recommend and appraise a theoretical model of the relationship between occupational culture dimensions and reward preferences of specific occupational groups in the South African context.

Motivation for the study: The motivation for this study was to address the gap that exists with reward preferences and occupational culture with a view to identifying and gaining insight into individual preferences.

Research design, approach and method: A structural equation modelling approach was adopted in exploring the proposed relationships. A South African Information, Communication, and Technology (ICT) organisation served as the population, and a web-based survey assisted in gathering study data (n = 1362).

Main findings: The findings provided support for the relationship between occupational culture dimensions and certain reward preferences. In particular, statistically significant results were obtained with the inclusion of the *Environment, Team,* and *Time* occupational culture dimensions as independent variables.

Practical implications and value-add: The study provides workable input to organisations and reward professionals in the design of their reward strategies and programmes.

Introduction

Key focus of the study and background

Employee turnover remains a concern for employers (Silverstone, 2009). Organisations continue to face the challenge of retaining the key skills and competencies required to achieve organisational objectives, particularly so in a very demanding economic climate and competitive talent market (Moore & Bussin, 2012; Munsamy & Venter, 2009; Nzukuma & Bussin, 2011). Bhattacharya and Mukherjee (2009) highlight the association between employee retention and reward. Employee reward is concerned with the reward of individuals as aligned to the value that they add to the organisation (Armstrong, 2002). Despite the introduction of a total reward approach (WorldatWork, 2008), effective reward remains a challenge for organisations.

Trends from the research

Research has considered reward preferences from a range of standpoints in an attempt to better comprehend individual preferences. This has included consideration of the influence of demographic factors such as race, gender, age and marital status (Moore & Bussin, 2012; Nienaber, Bussin & Henn, 2011; Schlechter, Thompson & Bussin, 2015; Snelgar, Renard & Venter, 2013), personality type (Nienaber *et al.*, 2011; Vandenberghe, St-Onge & Robineau, 2008), generational theory (Bunton & Brewer, 2012; Bussin & Van Rooy, 2014; Smit, Stanz & Bussin, 2015; Snelgar *et al.*, 2013), industry (Bussin & Toerien, 2015) and the influence of national culture on reward preferences (Herkenhoff, 2000; Newman & Nollen, 1996; Schuler & Rogocsky, 1998; Westerman, Beekun, Daly & Vanka, 2009), led primarily by Hofstede's (1980) research. Despite these studies,

further clarity is still required on how organisations should devise appropriate reward strategies, especially when dealing with non-financial rewards (Armstrong & Stephens, 2005; Schlechter *et al.*, 2015).

While the impact of national culture on reward preferences has been researched (Herkenhoff, 2000; Hofstede, 1980; Westerman *et al.*, 2009), occupational culture offers a further level of culture, which impacts on employee behaviour informed by membership to an occupational group (Lachman, Nedd & Hinings, 1995). As with national culture, occupational culture too may impact on employee behaviour in terms of reward preferences; however, this has not been empirically tested and explored in the literature as yet.

Research objectives

The primary purpose of this study was to research reward preferences from an occupational culture perspective within the South African context. In line with this purpose, the main objective of the research was to propose and evaluate a theoretical model of the relationship between occupational culture dimensions and employee reward preferences. The core research problem relates to a gap in empirical research of the effect occupational culture has on reward preferences.

The potential value-add of the study

By assessing the extent to which occupational groups prefer the different types of reward offered in the workplace, organisations will be more informed and enabled to leverage benefit from the structuring of the different reward elements in accordance with these preferences, thereby aiding retention efforts. In addition, consideration of occupational groups from a time orientation perspective in particular may guide organisations to structure incentive plans in such a manner that the preference for short- or long-term incentives can be optimised to achieve the greatest return for this investment. Organisations too can consider the findings in the application of the principles relating to pay allocation and pay orientation.

What will follow

The next section is a review of the literature, outlining research on the main constructs and integrating it with this research. This is followed by a description of the research design, findings, results and discussion.

Synthesis and critical evaluation of the literature and hypotheses
Occupational culture theory

While organisations display their own culture, further cultures (known as subcultures) are evident within the larger organisational system. Subcultures form along different lines, and occupation is proposed as one of the most pronounced differentiators in the organisation context (Trice, 1993). Culture pertains to shared values, beliefs and ideas.

Occupational culture theory holds that shared values, beliefs, ideas and orientations are based on membership in a specific profession or occupation group (Ames, Duke, Moore & Cunradi, 2009; Sheer & Chen, 2003; Trice, 1993). From an organisational perspective, values, beliefs and orientations influence the behaviour of employees (Herkenhoff, 2004). By nature, shared values and beliefs may therefore impact the behaviour of occupational groups. This impact may be evident in aspects such as reward preferences. Viitanen (2000) highlights that contributing to the formation of occupational cultures are the rights, privileges and obligations that employees have, based on their occupational group. Characteristics of occupational cultures include factors such as unique training and development, particular duties, control over certain functions and tasks, possessing specific competencies, knowledge and skills and obtaining specific qualifications and membership in professional and occupational bodies and associations (O'Hara-Devereaux & Johansen, 1994; Schein, 2004; Trice, 1993).

Dimensions of occupational culture

Hofstede's (1980) national culture dimensions assist in the study of occupational culture (Ulijn, Nagel & Liang, 2001). Herkenhoff (2009) concurs and has highlighted that by measuring occupational culture against relevant occupational culture dimensions, it is possible for researchers to assess relative differences across occupational groups. Herkenhoff (2009) proposed five occupational culture dimensions, namely *Power, Risk, Gender, Time* and *Team*.

Power

The *Power* occupational culture dimension considers the extent to which power differences are accepted and addressed within the occupation (Herkenhoff, 2009). From this premise, a high score on the *Power* dimension highlights that an individual is more likely to accept power differences. From a national culture perspective, this is aligned to the *Power Distance* national culture dimension (Hofstede, 1991; Punnett & Ricks, 1997) and deals with the extent to which inequality in society is accepted. High *Power Distance* national cultures would typically display the following characteristics: bureaucratic, hierarchical structures; defined and accepted order and ranking; decision making that is centralised; as well as authoritarian-based leadership (Lee & Carter, 2005; Mead, 1990; Punnett & Ricks, 1997). Erez (1997) highlights that is this is evident in reward systems too where pay differences based on an employee's grade or level are readily accepted (Erez, 1997). Conversely, aspects such as extensive consultation, promotion of equal rights and the possibility to change status and ranking are characteristic of low *Power Distance* cultures. Within the organisation context, this is evident in flatter structures, smaller pay differentials and a leadership style that is more democratically based (Hofstede, 1995; Punnett & Ricks, 1997). Given the empirical links between national culture and reward, the following directional hypotheses are proposed with regards to the

relationship between the occupational culture dimension of *Power* and employee reward preferences:

- **Hypotheses 1 (H₁):** A positive relationship is predicted between *Power* and *Job-level–based benefits.*
- **Hypotheses 2 (H₂):** A positive relationship is predicted between *Power* and *Performance and recognition*.
- **Hypotheses 3 (H₃):** A positive relationship is predicted between *Power* and *Career and development*.

Risk

The *Risk* occupational culture dimension gives consideration to the degree to which taking risks is accepted and encouraged among members of the occupational group. In this instance, for occupational groups that display a low score on the *Risk* dimension, members try to avoid risk and uncertainty. As highlighted by Herkenhoff (2009), this is typically evident in attempts to cater for eventualities through documenting procedures, roles and processes. Occupationally, reduced risk and uncertainty would be associated with predictable and routine jobs (for example, payroll clerk) and this would be evident through a low score on the *Risk* dimension. Conversely, jobs associated with risk and chance taking (e.g. fire fighters) show a high score on this dimension. From a national culture perspective, *Risk* is aligned to *Uncertainty Avoidance*. This pertains to the manner in which uncertainty is dealt with and the tendency to either promote uncertainty or seek surety. This is likened to low and high uncertainty avoidance cultures, respectively (Hofstede, 1980). From a work perspective, high uncertainty avoidance is evident in a need for job security, mapped career paths, retirement plans as well as clear goals, roles and responsibilities. Low uncertainty avoidance is witnessed through risk taking, more informality in roles and processes and quick decision making (Hofstede, 1995; Lee & Carter, 2005; Mead, 1990; Punnett & Ricks, 1997). Given the literature presentations, the following directional hypotheses are formulated regarding the relationship between the occupational culture dimension of *Risk* and employee reward preferences:

- **Hypotheses 4 (H₄):** A negative relationship is predicted between *Risk* and *Guaranteed package.*
- **Hypotheses 5 (H₅):** A negative relationship is predicted between *Risk* and *Pension.*
- **Hypotheses 6 (H₆):** A negative relationship is predicted between *Risk* and *Short-term incentives*.
- **Hypotheses 7 (H₇):** A negative relationship is predicted between *Risk* and *Job security*.

Gender

The *Gender* occupational culture dimension, which incorporates the *Service, Machismo,* and *Environment* dimensions, deals with the extent to which gender-based role differentiation is experienced and promoted within the occupation (Herkenhoff, 2009). *Service* relates to the degree to which the occupation involves providing assistance or service to others. *Machismo* is associated typically with male-dominated occupations, while *Environment* considers the extent to which the occupation places value on the workplace environment (Herkenhoff, 2009).

In the present study, the *Service* and *Environment* dimensions are considered. From a national culture perspective, the *Gender* dimension can be associated with the *Masculinity-Femininity* dimension (Hofstede, 1980). *Masculinity* is associated with the degree to which traditional male behaviour or values (for example, assertiveness and ambition) are promoted in the community. Workwise, this plays out in differentiated work roles and an achievement orientation (Mead, 1990; Punnett & Ricks, 1997). More feminine cultures are typically more fluid in their gender roles and emphasis is placed on traditional feminine values, such as orientation focus on relationships. Workwise, it translates into a focus on work–life balance, a pleasant working environment and social welfare considerations (Hofstede, 1995; Lee & Carter, 2005; Punnett & Ricks, 1997). Given these national culture links, the following directional hypotheses are formulated regarding the relationship between the *Gender* occupational culture dimensions of *Environment* and *Service* and employee reward preferences:

- **Hypotheses 8 (H₈):** A positive relationship is predicted between *Environment* and *Performance and recognition*.
- **Hypotheses 9 (H₉):** A positive relationship is predicted between *Environment* and *Career and development*.
- **Hypotheses 10 (H₁₀):** A positive relationship is predicted between *Environment* and *Work hours*.
- **Hypotheses 11 (H₁₁):** A positive relationship is predicted between *Environment* and *Family-related benefits*.
- **Hypotheses 12 (H₁₂):** A positive relationship is predicted between *Service* and *Work hours*.
- **Hypotheses 13 (H₁₃):** A positive relationship is predicted between *Service* and *Family-related benefits*.

Time

Time refers to the degree to which the occupational group is long-term focused (Herkenhoff, 2009). Occupational groups that display a short-term orientation (that is a low score on the *Time* occupational culture dimension) display a preference for short-term results and feedback from a work and reward perspective, an example being a call centre agent with daily outbound call targets. Conversely, occupational groups that display a long-term orientation (a high score on the *Time* occupational culture dimension) place more emphasis on goals, rewards and objectives that are future based (Herkenhoff, 2009). From a national culture perspective, this aligns with Bond's (1988) *Long-term orientation* dimension. Based on the presented literature, the following directional hypotheses are formulated regarding the relationship between the occupational culture dimension of *Time* and employee reward preferences:

- **Hypotheses 14 (H₁₄):** A positive relationship is predicted between *Time* and *Pension*.
- **Hypotheses 15 (H₁₅):** A negative relationship is predicted between *Time* and *Short-term incentives*.

Team

The *Team* occupational culture dimension can be likened to the *Individualism-Collectivism* national culture dimension,

which considers the individual in relation to his or her national culture group (Hofstede, 1980; Trompenaars, 1993). Herkenhoff (2009) concurs that it relates to the extent to which personal needs and desires are primary to those of the collective. Occupationally, this relates to the promotion of the needs of the individual versus those of the group. A high score on the *Team* dimension is associated with collectivism, while a low score on the *Team* dimension is aligned to individualism. Workwise, the dimension has an influence on reward systems. This is apparent in the equity and equality pay allocation principles (Erez, 1997). Equity can be associated with *Individualism* while equality aligns to a team orientation, namely *Collectivism*. Effective reward in high individualist cultures focuses on practices that encourage and reward independent work and decision making, while in low individualist cultures, reward would be group based on group decision making and performance (Mead, 1990; Punnett & Ricks, 1997). In low individualist cultures, it may be found that top performers share their monetary reward for goal attainment with the team (Trompenaars, 1993), thereby practically displaying the principle of *Collectivism*. The following directional hypotheses are formulated regarding the relationship between the occupational culture dimension of *Team* and employee reward preferences:

- **Hypotheses 16 (H_{16}):** A positive relationship is predicted between *Team* and *Team pay*.
- **Hypotheses 17 (H_{17}):** A positive relationship is predicted between *Team* and *Team equal*.

Reward theory

The international professional reward association, WorldatWork, advocates a total reward approach to employee reward. Total reward can be defined as 'the monetary and non-monetary return provided to employees in exchange for their time, talents, efforts, and results' (WorldatWork, 2007, p. 4). This approach considers the employee holistically in terms of personal and professional needs. In consideration with the range of employee needs, total reward encompasses rewards that are financially and non-financially based. Financial reward, for example, pay- and monetary-based incentives, speaks to the individual's financial needs. Non-financial reward encompasses aspects such as opportunities for learning and growth, career prospects and management, organisational values, performance and recognition, relationships at work, job security and work–life balance (Armstrong, 2002; Thompson & McHugh, 2002; WorldatWork, 2008).

Total reward frameworks

The framework utilised in the study for total reward is indicated in Figure 1. The total reward framework incorporates financial rewards, non-financial rewards and benefits. Financial rewards incorporate two reward elements, namely Guaranteed package and short- and/or long-term incentives (Bussin, 2011). Guaranteed package is a primarily South African–based reward term and refers to basic pay in this
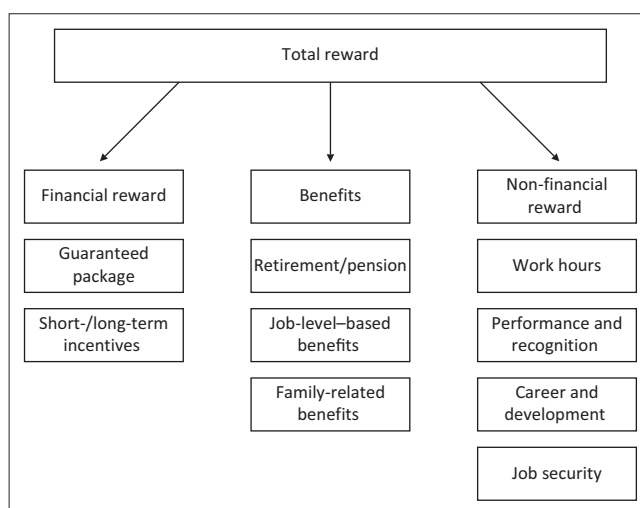

FIGURE 1: Total reward framework adopted in the study.

instance. As suggested by WorldatWork (2008), provision was included for the following non-financial reward elements, namely Work hours (representing work–life balance), Performance and recognition and Career and development opportunities. Job security is incorporated as a non-financial reward element, given the primarily intangible nature of this reward element. Benefits include Retirement or pension, Job-level–based benefits and Family-related benefits as per Herkenhoff's (2000) national culture or pay study.

The study further considers pay orientation and pay allocation principles referred to as Team pay and Team equal, respectively.

Research design, approach and method

Research approach

The research design was exploratory and explanatory. The research was quantitative and a structural equation modelling (SEM) approach was selected in order to test the hypotheses and to explore the proposed relationships between the latent and observed research variables (Nye & Drasgow, 2011).

Research method

Participants and sample: A South African Information, Communication, and Technology (ICT) organisation was selected for the study purpose considering its 20 420 employees who are employed on a permanent basis. All employees up to and including first-line management who are South African nationals were considered. The population was divided into occupational groups and sorted according to employee reference numbers. Every tenth employee per occupational group was selected for the sample. Some occupational groups consisted of small representations (e.g. Accountants), and these groups were excluded. The final sample included the following occupational groups: Manager, Information Technology, Technician, Clerical or Admin and Sales.

The output of the sampling was a study sample of 10 581. Data collection resulted in 1362 usable questionnaires, which represents a 12.9% response rate (the study organisation typically obtains a 10% response rate to surveys; the response rate was therefore aligned to the norm). Table 1 provides a profile of the respondents. All race groups participated in the study, with the bulk of respondents being white people (48.3%), male gender (70.1%) and from the 40- to 49-year age group (41.3%). The Technician occupational group had the largest representation (44.4%). The age, gender and occupational group distribution of respondents was representative of the target population. In terms of race, the white group was over-represented, and conversely, the African group was under-represented.

Measuring instrument: A web-based survey was utilised in the study. The first part of the survey related to biographical and demographic data collection. The second part, which made use of a five-point Likert-type rating scale, contained the independent and dependent variable measurement scales. The following descriptors were used: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neither disagree nor agree*, 4 = *agree* and 5 = *strongly agree*.

Biographical and demographic questionnaire

The biographical and demographic questionnaire requested respondent information regarding age, race, gender and occupational group.

Occupational culture questionnaire

Background to the questionnaire: Herkenhoff's (2010) Professional Culture questionnaire (PC08) served as the basis for the design of the occupational culture questionnaire (PC10). The PC08 measured occupational culture differences based on the five national culture dimensions proposed by Hofstede (1980) and Bond (1988). There is paucity of occupational culture measurement tools available, and

given the published empirical testing, the PC08 was selected as the most appropriate measure aligned to the research purpose The PC08 consisted of 15 questions, which cover the five occupational culture dimensions, namely *Power, Time, Risk, Gender (Service)* and *Team*. Three questions are included for each of the dimensions (Herkenhoff, 2010).

Amendments to the original measurement tool: Slightly low reliabilities were calculated for some of the subscales of the PC08. To strengthen the measurement tool's psychometric properties, additional items were incorporated for all subscales. The *Environment* component of the *Gender* dimension was further incorporated in the questionnaire for the study purpose. Given the amendments, the proposed PC10 questionnaire was subjected to rigorous measurement model analysis as part of the study.

Validity or reliability: The reliability analysis results are shown in Table 2. As highlighted in the table, with the exception of the *Power* subscale (0.59), all the occupational culture subscales on the PC10 questionnaire attained a Cronbach's coefficient alpha value of at least 0.70 as recommended (Pallant, 2007). Subject matter experts confirmed the face validity of the questionnaire.

Reward preference questionnaire: *Background to the questionnaire:* The South African reward preference questionnaire (SARM10) is based on the RM98 remuneration questionnaire, which measured employee remuneration preferences (Herkenhoff, 2000, 2009). The RM98 questionnaire considered 7 remuneration elements and consisted of 17 items, namely 2 to 4 items per element (Herkenhoff, 2000). The seven remuneration elements are hierarchical, pension, job security, work hours, welfare, team pay and team all (Herkenhoff, 2000).

Amendments to the original measurement tool: The RM98 questionnaire was revised to align to the modern approach to total reward as proposed by WorldatWork (2008). The RM98 was further American based and was amended to align to the South African context. Additional items were incorporated to the RM98 in order to address lower-than-desired reliabilities, which were reported across some of the subscales. Given the amendments, the SARM10 questionnaire was subjected to rigorous measurement model analysis.

Validity or reliability: Reliability analysis results for the final study are shown in Table 3. As indicated in the table,

TABLE 1: Biographical and demographic data of respondents.

Variable	Category	Frequency (*f*)	Percentage (%)
Race	African	396	29.1
	Coloured	183	13.4
	Indian	125	9.2
	White	658	48.3
Gender	Female	407	29.9
	Male	955	70.1
Age (in years)	0–19	0	0.0
	20–29	106	7.8
	30–39	406	29.8
	40–49	563	41.3
	50–59	276	20.3
	60–79	11	0.8
Occupational group	Manager	65	4.8
	Information technology	89	6.5
	Technicians	605	44.4
	Sales	238	17.5
	Supervisory	222	16.3
	Clerical or admin	143	10.5

n = 1362.

TABLE 2: PC08 (Herkenhoff, 2010) and PC10 subscale reliabilities.

Subscale	PC08		PC10	
	Number of items	Cronbach's alpha coefficient	Number of items	Cronbach's alpha coefficient
Power	3	0.82	8	0.59†
Time	3	0.75	7	0.78
Risk	3	0.65†	7	0.74
Gender (Service)	3	0.49†	7	0.75
Gender (Environment)	-	-	7	0.80
Team	3	0.78	7	0.74

†, Cronbach's alpha coefficients < 0.70.

TABLE 3: RM98 (Herkenhoff, 2000) and SARM10 subscale reliabilities.

Subscale	RM98		SARM10	
	Number of items	Cronbach's alpha coefficient	Number of items	Cronbach's alpha coefficient
Guaranteed package	-	-	8	0.74
Short-term incentives	-	-	7	0.85
Retirement or pension	2	0.81	7	0.81
Hierarchical (RM98)	3	0.89	-	-
Job-level–based benefits (SARM10)	-	-	7	0.75
Welfare (RM98)	2	0.88	-	-
Family-related benefits (SARM10)	-	-	7	0.81
Work hours	2	0.59†	8	0.75
Performance and recognition	-	-	7	0.87
Career and development	-	-	7	0.81
Job security	2	0.65†	7	0.85
Team pay	2	0.85	6	0.69
Team all (RM98)	4	0.92	-	-
Team equal (SARM10)	-	-	6	0.90

†, Cronbach's alpha coefficients < 0.70.

reliabilities for the Job security (0.65) and Work hours (0.59) subscales of the original RM98 were lower than desired. Excepting the Team pay subscale (0.69), reliabilities for the SARM10 reward subscales were acceptable. Face validity of the SARM10 questionnaire was confirmed by reward experts.

Questionnaire pre-testing

The proposed research questionnaire underwent pre-testing and two pilot studies. Each pilot consisted of 820 employees. A stratified sampling procedure ensured that employees from the identified occupational groups were represented appropriately. A total of 160 responses were received in the first pilot study, and 146 of these responses were complete (19.5% response rate). For the second pilot study, 139 complete responses were received (17% response rate).

The computerised IBM SPSS Statistics package, version 18 (IBM, 2011), was utilised to conduct initial statistical analyses. This incorporated exploratory factor analysis with maximum likelihood and oblique rotations. Cronbach's coefficient alpha was calculated in terms of the reliability and item analysis. Results from pilot study 1 revealed very different properties to those reported for the original measurement tools (i.e. the PC08 and RM98). Reliabilities across most of the subscales were below cut-off values, and the factor analyses results were problematic for a number of the subscales. Problematic items were reworked and additional items per subscale were added. The revised questionnaire was re-tested. Results of the second pilot study revealed improved reliabilities across most of the subscales. A few of the subscales remained problematic with below-average reliabilities (namely, the *Power, Risk* and *Team* occupational culture subscales and the Job-level–based benefits, Work hours and Team pay reward subscales). A few factor analysis issues remained. The questionnaire was amended to address the problems highlighted through the factor analysis.

Research procedure

Data collection for the two pilot studies took place over a 5-day period each, while data collection for the main study took place over a 10-day period. In collecting the study data, an email was sent to the sample which introduced the research, its purpose and objective. The email included the survey web-link and completion instructions. It further highlighted that participation was voluntary and that responses would be used for research purposes alone. Reminder emails were distributed to the sample in the main study halfway through the data collection period (i.e. after 5 days).

Statistical analysis

The computerised IBM SPSS Statistics package, version 18 (IBM, 2011), was utilised to calculate descriptive statistics and in conducting exploratory factor analysis, reliability analysis and confirmatory factor analysis. WINSTEPS, version 3.71.0 (Linacre, 2011), was utilised in conducting Rasch rating scale analysis in order to consider the contribution of each item towards the internal consistency.

Results

Descriptive statistics

Descriptive statistics for the Occupational culture questionnaire (PC10) are included in Table 4. The highest mean score (4.50) was reported for Item A19 on the *Environment* subscale ('I make decisions in my job without clearly defined guidelines'). Item A11 ('I would rather work less hours and get less pay') displayed the lowest mean score (2.79). The majority of the items displayed a negative skewness. This represented a positive response pattern (Pallant, 2007). Robust maximum likelihood (RML) was utilised in the further analyses to cater for skewness in the data.

SARM10 descriptive statistics are shown in Table 5. The highest mean score (4.51) was reported for Item D7 on the *Performance and recognition* subscale ('Being recognised for my skills and abilities is important to me'). Item B26 ('I would rather work less hours and get less pay') reported the lowest mean score (1.93); this item was in the *Work hours* subscale. The majority of the items displayed a negative skewness representing a positive response pattern (Pallant, 2007). RML was utilised in the further analyses to cater for skewness in the data.

Structural equation modelling analyses

In line with the study purpose, analyses focused on testing the proposed SEM theoretical model. The first step consisted of assessing the model fit with specific consideration to the standardised residuals and the 'goodness of fit' statistical analysis. In terms of the proposed theoretical model, 1301 statistically significant standardised residuals with an absolute value greater than 2.58 ($p < 0.01$) were detected in the reproduced residual matrix. The output of the goodness of fit analysis is reflected in Table 6. As reflected, the root mean square error of approximation = 0.040, $p = 1.000$, 90% confidence interval [0.039, 0.040] and was indicative of good

TABLE 4: Descriptive statistics for the occupational culture scale (PC10).

Subscale	Item	N: Valid	N: Missing	Mean	Median	Mode	Standard deviation	Skewness	Kurtosis
Power	A1	1362	0	3.95	4.00	4	0.866	-1.153	1.734
	A3	1362	0	3.17	3.00	4	1.075	-0.192	-0.757
	A4	1362	0	3.67	4.00	4	0.959	-0.950	0.601
	A21	1362	0	4.06	4.00	4	0.819	-1.228	2.468
	A23	1362	0	3.20	3.00	3	1.085	-0.113	-0.719
	B1	1284	78	3.28	3.00	3	0.811	-0.252	-0.019
	B2	1284	78	3.59	4.00	4	1.074	-0.384	-0.802
	B3	1284	78	3.62	4.00	4	1.081	-0.441	-0.778
Risk	A11	1362	0	2.79	3.00	2	1.154	0.229	-0.934
	A13	1362	0	3.19	3.00	4	1.058	-0.056	-0.913
	A14	1362	0	3.11	3.00	2	1.092	0.037	-0.924
	A15	1362	0	3.15	3.00	4	1.090	-0.163	-0.902
	A16	1362	0	3.33	4.00	4	1.098	-0.291	-0.818
	B6	1284	78	2.69	2.00	2	1.089	0.421	-0.678
	B7	1284	78	3.90	4.00	4	0.820	-0.819	0.913
Service	A9	1362	0	4.23	4.00	4	0.832	-1.345	2.317
	A17	1362	0	3.80	4.00	4	0.905	-0.929	0.795
	A18	1362	0	4.26	4.00	4	0.756	-1.312	2.879
	A20	1362	0	4.19	4.00	4	0.813	-1.183	1.924
	A25	1362	0	4.26	4.00	4	0.766	-1.440	3.489
	B8	1284	78	4.48	5.00	5	0.693	-1.600	3.768
	B9	1284	78	4.29	4.00	5	0.870	-1.532	2.745
Environment	A2	1362	0	4.12	4.00	4	0.825	-1.170	1.925
	A19	1362	0	4.50	5.00	5	0.658	-1.646	4.703
	A26	1362	0	4.39	5.00	5	0.758	-1.627	3.865
	A27	1362	0	4.33	4.00	4	0.719	-1.178	2.098
	A29	1362	0	4.34	4.00	5	0.739	-1.359	2.898
Time	B12	1284	78	4.45	4.00	5	0.602	-0.846	1.184
	B13	1284	78	4.24	4.00	4	0.821	-1.124	1.306
	A6	1362	0	4.00	4.00	4	0.884	-1.034	1.208
	A7	1362	0	3.77	4.00	4	0.956	-0.837	0.405
	A8	1362	0	3.83	4.00	4	0.983	-0.884	0.436
	A10	1362	0	4.08	4.00	4	0.829	-1.156	2.047
	A12	1362	0	3.13	3.00	4	1.057	-0.099	-0.910
	B4	1284	78	3.73	4.00	4	0.943	-0.782	0.274
	B5	1284	78	3.95	4.00	4	0.811	-0.921	1.345
Team	A5	1362	0	3.56	4.00	4	1.070	-0.619	-0.313
	A22	1362	0	4.21	4.00	4	0.801	-1.257	2.334
	A24	1362	0	3.95	4.00	4	0.952	-1.048	0.869
	A28	1362	0	3.95	4.00	4	0.954	-1.111	1.229
	A30	1362	0	3.64	4.00	4	1.086	-0.534	-0.499
	B10	1284	78	4.08	4.00	4	0.913	-1.208	1.592
	B11	1284	78	3.62	4.00	4	1.129	-0.674	-0.390

fit. In addition, the standardised root-mean-square residual value of 0.069 provided support for good model fit. However, lower-than-desired comparative fit index and Tucker–Lewis index values of 0.777 and 0.768 were found; therefore, only partial empirical support was reported for the fit of the proposed theoretical model.

Focus was given to the Gamma parameters or regression lines in considering the model parameter estimates of the proposed theoretical model. Of particular interest were the size, direction and statistical significance of the relationships. Table 7 presents the standardised and unstandardised Gamma values. Nine of the hypothesised regressions showed statistically significant relationships, with the majority of these values displaying statistical significance at the $p < 0.01$ level. All the statistically significant relationships were positive, with the exception of

H_{13} (*Service* and Family-related benefits) and H_{15} (*Time* and Short-term incentives), which reported standardised Gamma values of -0.168 ($p < 0.01$) and -0.089 ($p < 0.05$), respectively. While a negative relationship was hypothesised between *Time* and Short-term incentives (H_{15}), a positive relationship was hypothesised between *Service* and Family-related benefits (H_{13}). The direction of the relationship is therefore unexpected.

Model R-square values or commonalities were considered, given that in some cases it was found that dependent variables in the proposed theoretical model had more than one independent variable contributing to the reported variance. Cohen's (1988) guidelines assisted in interpreting the effect size, whereby $r = 0.10$ reflected a small effect size, $r = 0.30$ a medium effect size and $r = 0.50$ a large effect size. The Model R-square values for the proposed theoretical model are reflected

TABLE 5: Descriptive statistics for the reward preference scale (SARM10).

Subscale	Item	N: Valid	N: Missing	Mean	Median	Mode	Standard deviation	Skewness	Kurtosis
Guaranteed package	C15	1259	103	4	4	4	0.808	-0.968	1.606
	C20	1259	103	4.03	4	4	0.781	-0.916	1.66
	D11	1250	112	4.35	4	4	0.693	-1.034	1.75
	D21	1250	112	4.18	4	4	0.735	-0.801	1.038
	D22	1250	112	3.11	3	3	1.031	-0.124	-0.34
	D23	1250	112	4.07	4	4	0.924	-0.939	0.562
	D24	1250	112	3.79	4	4	0.936	-0.611	0.077
	D25	1250	112	4.27	4	4	0.6	-0.462	0.806
Short-term incentives	B18	1284	78	3.66	4	4	1.045	-0.645	-0.149
	B19	1284	78	3.79	4	4	0.991	-0.831	0.319
	C4	1259	103	3.4	4	4	1.109	-0.308	-0.717
	C5	1259	103	3.52	4	4	1.006	-0.458	-0.337
	C17	1259	103	3.59	4	4	1.024	-0.563	-0.219
	D3	1250	112	3.46	4	4	0.975	-0.431	-0.319
	D30	1250	112	3.92	4	4	0.827	-0.647	0.595
Pension	B17	1284	78	3.24	3	4	1.179	-0.248	-0.801
	B20	1284	78	3.45	4	4	1.116	-0.371	-0.615
	B23	1284	78	4.4	5	5	0.714	-1.467	3.433
	C8	1259	103	3.35	3	3	1.019	-0.173	-0.494
	D27	1250	112	3.11	3	3	1.11	-0.005	-0.733
	D28	1250	112	3.18	3	3	1.016	-0.017	-0.566
	D29	1250	112	3.58	4	4	0.938	-0.553	0.086
Job-level–based benefits	B14	1284	78	2.84	3	1	1.453	0.115	-1.408
	B21R	1284	78	2.32	2	1	1.371	0.625	1
	B29	1284	78	1.99	2	1	1.18	0.959	-0.17
	C27	1259	103	3.84	4	4	0.878	-0.869	0.983
	C28	1259	103	3.71	4	4	0.99	-0.606	-0.061
	D9	1250	112	2.47	2	1	1.201	0.294	-0.992
	D12	1250	112	2.71	3	2	1.284	0.175	-1.18
Family-related benefits	B25	1284	78	3.17	3	3	0.957	-0.044	-0.313
	B30	1284	78	4.03	4	4	0.964	-1.034	0.879
	C1	1259	103	3.74	4	4	0.834	-0.568	0.363
	C3	1259	103	3.81	4	4	0.863	-0.58	0.134
	C21	1259	103	3.41	3	3	0.898	-0.175	-0.217
	C22	1259	103	3.93	4	4	0.985	-0.87	0.465
	C23	1259	103	3.36	3	3	1.095	-0.225	-0.602
Job security	B15	1284	78	3.3	3	3	1.148	-0.3	-0.638
	B16	1284	78	3.18	3	4	1.197	-0.291	-0.813
	B24	1284	78	3.1	3	3	1.21	-0.023	-0.966
	C13	1259	103	2.91	3	3	1.097	0.126	-0.703
	C24	1259	103	3.4	4	4	1.032	-0.362	-0.431
	C25	1259	103	4.17	4	4	0.751	-1.065	2.187
	C26	1259	103	3.42	4	4	1.053	-0.282	-0.589
Work hours	B22	1284	78	3.97	4	4	1.006	-0.933	0.471
	B26	1284	78	1.93	2	2	0.989	1.169	1.143
	B27	1284	78	3.3	3	4	1.16	-0.284	-0.787
	C7	1259	103	3.98	4	4	0.813	-0.756	0.83
	C18	1259	103	3.62	4	4	1.053	-0.628	-0.171
	C29	1259	103	3.76	4	4	0.976	-0.674	0.07
	C30	1259	103	3.97	4	4	0.771	-0.739	1.107
	D1	1250	112	2.89	3	3	0.953	0.23	-0.287
Career and development	D4	1250	112	4.1	4	4	0.74	-0.822	1.318
	D5	1250	112	3.96	4	4	0.862	-0.84	0.767
	D8	1250	112	4.4	5	5	0.716	-1.237	0.974
	D13	1250	112	3.36	3	3	1.045	-0.129	-0.628
	D15	1250	112	4.32	4	4	0.674	-1.109	2.786
	D16	1250	112	4.37	4	4	0.636	-0.942	2.131
	D19	1250	112	3.52	3	3	0.992	-0.154	-0.55

TABLE 5 (Continues...): Descriptive statistics for the reward preference scale (SARM10).

Subscale	Item	N: Valid	N: Missing	Mean	Median	Mode	Standard deviation	Skewness	Kurtosis
Performance and recognition	D6	1250	112	4.42	4	4	0.562	-0.409	-0.138
	D7	1250	112	4.51	5	5	0.565	-0.755	0.512
	D10	1250	112	4.49	5	5	0.619	-1.096	1.837
	D14	1250	112	4.36	4	4	0.581	-0.489	0.781
	D17	1250	112	4.37	4	4	0.616	-0.68	1.012
	D18	1250	112	4.39	4	4	0.623	-0.837	1.458
	D20	1250	112	4.3	4	4	0.634	-0.624	0.857
Team pay	B28	1284	78	3.27	3	4	1.06	-0.388	-0.394
	C2	1259	103	4.02	4	4	0.981	-1.186	1.134
	C6	1259	103	3.16	3	4	1.225	-0.246	-1.002
	C14	1259	103	3.47	4	4	0.95	-0.539	-0.036
	C19	1259	103	3.41	4	4	0.99	-0.401	-0.248
	D26	1250	112	3.57	4	4	0.999	-0.475	-0.21
Team equal	C9	1259	103	3.66	4	4	1.174	-0.655	-0.481
	C10	1259	103	3.72	4	4	1.183	-0.694	-0.536
	C11	1259	103	3.51	4	4	1.274	-0.443	-1.009
	C12	1259	103	3.38	4	4	1.236	-0.278	-1.05
	C16	1259	103	3.21	3	4	1.213	-0.064	-1.089
	D2	1250	112	3.52	4	4	1.091	-0.503	-0.626

TABLE 6: Goodness of fit statistics for the proposed structural equation modelling theoretical model.

p value	Chi-square test of model fit		Scaling correction factor for RML	RMSEA		90% CI	CFI/TLI		SRMR value
	Value	Degrees of freedom		Estimate	p value RMSEA (≤ 0.05)		CFI	TLI	
0	13468.5	4472	1.183	0.04	1	0.039, 0.040	0.777	0.768	0.069

RML, robust maximum likelihood; RMSEA, root mean square error of approximation; CI, confidence interval; CFI, comparative fit index; TLI, Tucker–Lewis index; SRMR, standardised root-mean-square residual.

TABLE 7: Gamma parameters for the proposed structural equation modelling theoretical model.

Hypothesis	Standardised Gamma	Unstandardised Gamma
H_1	-0.098	-0.548
H_2	0.022	0.066
H_3	0.025	0.067
H_4	0.044	0.024
H_5	0.064	0.067
H_6	0.087*	0.079*
H_7	-0.030	-0.035
H_8	0.328**	0.398**
H_9	0.272**	0.295**
H_{10}	0.251**	0.491**
H_{11}	0.308**	0.381**
H_{12}	-0.085	-0.137
H_{13}	-0.168**	-0.170*
H_{14}	0.018	0.024
H_{15}	-0.089*	-0.102*
H_{16}	0.250**	0.244**
H_{17}	0.066*	0.096*

*, $p < 0.05$; **, $p < 0.01$.

TABLE 8: R-square values for the proposed structural equation modelling theoretical model.

Latent variable	Model R-square	p value
Guaranteed package	0.002	0.584
Short-term incentives	0.012	0.159
Pension	0.005	0.352
Job-level–based benefits	0.010	0.346
Family-related benefits	0.058**	0.004
Job security	0.001	0.692
Work hours	0.043*	0.007
Performance and recognition	0.112**	0.000
Career and development	0.079**	0.000
Team equal	0.004	0.331
Team pay	0.063**	0.002

*, $p < 0.05$; **, $p < 0.01$.

Model R-square values were not statistically significant for the Guaranteed package, Short-term incentives, Pension, Job-level–based benefits, Job security, and Team equal reward subscales. Measurement issues were reported for the dependent variable measurement model relating to the Guaranteed package, Short-term incentives, Pension, Job-level–based benefits and Team equal subscales. Issues around model fit were also cited for these particular subscales. The lack of statistical significance of these R-square values could therefore be measurement related. With regards to job security, Chiang (2005) suggests that a preference in this regard is typically influenced by broader external or contextual factors rather than culture values, and this may assist in understanding the lack of statistical significance with regard to the *Job security* reward element at a model level. To this end, environmental elements such as the economic position as well as values and practices in the organisation, rather than a sole focus on cultural issues, could have an influence on the job security reward element.

in Table 8. As can be seen, results revealed statistically significant model R-square values in that *Power* and *Environment* together explain 11.2% variance in Performance and recognition. *Power* and *Environment* combined explain 7.9% variance in Career and development. The *Team* occupational culture subscale explains 6.3% of the variance in Team pay, and *Environment* and *Service* jointly explain 5.8% variance in Family-related benefits. Work Hours, *Environment* and *Service* collectively explain 4.3% of the variance therein. Relatively small effect sizes were found.

Hypothesis testing

Hypotheses H_1–H_{17} were formulated relating to the proposed relationships between the occupational culture dimensions and reward preferences. As proposed by Pallant (2007), in reviewing the hypothesised relationships, the practical and statistical significance of relationships was considered. In terms of practical significance, of particular concern is the extent of the correlation and direction of the relationship. Guidelines proposed by Cohen (1988) assisted in guiding the interpretation of the size of the correlation (r), whereby $r = 0.10$ indicated a small effect size, $r = 0.30$ indicated a medium effect size and $r = 0.50$ and greater indicated a large effect size. Statistical significance considers the probability that the relationship exists and a cut-off of $p < 0.05$ was applied. R-square values provide insight into effect sizes. R-square values and commonalities were calculated and aided in the hypotheses testing.

Based on the output of the statistical analyses, 7 of the 17 formulated hypotheses were empirically supported. This pertained to the relationships between the *Environment* occupational culture dimension and Performance and recognition (H_8), Career and development (H_9), Work hours (H_{10}) and Family-related benefits (H_{11}), as well as the occupational culture dimension *Time* and Short-term incentives (H_{15}) and the *Team* occupational culture dimension and Team pay (H_{16}) and Team equal (H_{17}).

Very significant positive relationships with a small effect size were evident for *Environment* and Performance and recognition (H_8), *Environment* and Career and development (H_9), *Environment* and Work hours (H_{10}) and *Environment* and Family-related benefits (H_{11}). The variances explained in Performance and Recognition, Career and development, Work hours and Family-related benefits were 11.2%, 7.9%, 4.3% and 5.8%, respectively. A significant negative relationship between *Time* and Short-term incentives (hypothesis H_{15}) was evident with a small effect size. A 1.2% variance was explained in Short-term incentives. A very significant positive relationship was identified for hypothesis H_{16}, namely the relationship between *Team* and Team pay. A small effect size was evident, and 6.3% variance was explained in Team pay. A significant positive relationship between *Team* and Team equal (hypothesis H_{17}) was found. A very small effect size was evident and 0.4% variance was explained in Team equal.

Although statistically significant relationships were found for hypotheses H_6 (*Risk* and Short-term incentives) and H_{13} (*Service* and Family-related benefits), the direction of these relationships was not as predicted, and as such, these hypotheses could not be empirically proven. The remaining proposed hypotheses did not achieve the required level of statistical significance and could therefore not be empirically validated.

Discussion

All the hypothesised relationships in the proposed SEM theoretical model pertaining to the *Environment* occupational culture dimension were empirically corroborated. Therefore, a positive relationship was found between the *Environment* occupational culture dimension and a number of the reward preferences, namely, Performance and recognition, Career and development, Work hours and Family-related benefits. The *Environment* occupational culture dimension has not been researched previously, and as such, the findings are of particular interest. The findings are in line with the position that environment and work–life balance play a key role for knowledge workers in the information technology sector (Bussin & Toerien, 2015; Johns & Gratton, 2013) and the value that employees place on career growth and development (Nienaber *et al.*, 2011; Schlechter *et al.*, 2015). It is interesting to observe that the reward elements in these relationships (that is, in hypotheses H_8 to H_{11}) are largely non-financial reward based. Non-financial reward elements are related to emotional factors, which are seen as contributors to employee engagement (Heger, 2007). These emotional factors relate to aspects such as work achievement, work relationships, work climate and the opportunity to learn and grow (Shuck, Rocco & Albornoz, 2011). The significant findings on these particular hypotheses could potentially be seen as further evidence in support of the relationship between non-financial rewards and employee engagement.

The research highlighted a negative relationship between *Time* and Short-term incentives (hypothesis H_{15}). The negative relationship suggests that occupational groups that display a longer term orientation towards time show a lesser preferences for short-term rewards, for example on-the-spot incentives. Previous occupational culture research highlighted a short-term orientation specifically for the Information Technology occupational group, which indicates a preference for feedback which is immediate rather than postponed (Herkenhoff, 2010). The present findings are therefore in support of previous findings, albeit interpreted from a reward perspective.

The relationships between the *Team* occupational culture dimension and the Team pay and Team equal reward elements were also empirically supported. From a national culture perspective, the significant influence of the *Individualism-Collectivism* dimension on reward systems has previously been recorded. With an alignment between the *Team* occupational culture and the *Individualism-Collectivism* national culture dimension, the current results display similar support from an occupational group perspective. Practically, this implies that occupational groups with a team orientation may be inclined to prefer team-based reward practices such as recognition for the group as a whole, team-based awards and equal pay for team members.

Managerial implications

Findings of the research suggest that evaluating the extent to which an occupational group places the needs of the team above those of the individual may assist organisations in considering a team-based approach to reward. It is probable that those groups that are more concerned about team needs

will demonstrate a greater preference for a team-based reward approach. This may assist the organisation in decision making regarding pay practices, that is, in opting for individual versus team-based rewards. Furthermore, where risk-based incentives are incorporated as part of the overall reward strategy, the consideration should be given to whether employees are short- or long-term focused. This will assist in aiding maximum impact of adopting an incentive-based reward strategy. In this way, the study provides practical input to organisations and reward professionals in the design of reward strategies and programmes.

Adopting a completely individualised approach to reward is problematic for organisations administratively (Nienaber & Bussin, 2011). A group approach to reward may be more feasible. In practically implementing such an approach, organisations could consider a fixed basic pay and benefits structure with provision for flexible benefits, which are occupational group and reward preference-based (e.g. this may include the option for short- and/or long-term incentives for the sales occupational group). Based on the findings, this approach may be of particular value to organisations in the implementation of non-financial rewards elements such as Career growth and development, work-life balance and Performance and recognition. This would ease the administrative burden for the organisation while leveraging reward benefit from a retention perspective. Given that turnover levels tend to be higher for ICT staff versus general staff (P-E Corporate Survey, September 2010) and that attracting and retaining knowledge workers remains a challenge (Bussin & Toerien, 2015; Schlechter *et al.*, 2015), the findings may be of particular relevance for organisations operating in the ICT space.

As previously highlighted, the influence of occupational culture extends further than its influence on reward preferences and resultant reward practices. A consideration of the influence of occupational culture may assist organisations in better understanding not only individual behaviour but also group and organisation behaviour. From a human resource management perspective, an enhanced understanding of behaviour at these three levels may assist organisations in optimising efforts, enhancing performer–manager relationships and creating a conducive and motivating work environment.

Limitations of the study and directions for future research

The research was conducted in one country and one company in order to contain the effects of national and organisational culture. By nature of this research approach, generalisation of the findings has to be arrived at with caution. Despite a sizable sample and adopting a stratified strategy on sampling, the over-representation of the white race group needs to be noted in the interpretation of the final results. Future research should include replication studies as well as broader populations in order to aid the generalisability of the findings. Concerns around the psychometric properties of certain

subscales of the measurement tool were acknowledged, and this may have impacted the results incorporating the Job-level–based benefits and Work hours as well as the *Power*, *Service*, and *Risk* dimensions. Follow-up studies should focus on a further refinement of these measures.

Conclusion

With workforces becoming more diverse and globalised, the status quo of one-size-for-all cannot possibly last. Reward preferences exist, and much more research is required to better understand these preferences. We know already that reward preferences exist by gender, race, Myers Briggs profile, life cycle, and now we know that it also exists within different occupational groups. Organisations now need to find a way to implement reward choices to ensure optimal retention of staff. This will make them more productive, efficient and profitable.

Acknowledgements

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All chapters in this book were first published in SAJHRM, by African Online Scientific Information Systems; hereby published with permission under the Creative Commons Attribution License or equivalent. Every chapter published in this book has been scrutinized by our experts. Their significance has been extensively debated. The topics covered herein carry significant findings which will fuel the growth of the discipline. They may even be implemented as practical applications or may be referred to as a beginning point for another development.

The contributors of this book come from diverse backgrounds, making this book a truly international effort. This book will bring forth new frontiers with its revolutionizing research information and detailed analysis of the nascent developments around the world.

We would like to thank all the contributing authors for lending their expertise to make the book truly unique. They have played a crucial role in the development of this book. Without their invaluable contributions this book wouldn't have been possible. They have made vital efforts to compile up to date information on the varied aspects of this subject to make this book a valuable addition to the collection of many professionals and students.

This book was conceptualized with the vision of imparting up-to-date information and advanced data in this field. To ensure the same, a matchless editorial board was set up. Every individual on the board went through rigorous rounds of assessment to prove their worth. After which they invested a large part of their time researching and compiling the most relevant data for our readers.

The editorial board has been involved in producing this book since its inception. They have spent rigorous hours researching and exploring the diverse topics which have resulted in the successful publishing of this book. They have passed on their knowledge of decades through this book. To expedite this challenging task, the publisher supported the team at every step. A small team of assistant editors was also appointed to further simplify the editing procedure and attain best results for the readers.

Apart from the editorial board, the designing team has also invested a significant amount of their time in understanding the subject and creating the most relevant covers. They scrutinized every image to scout for the most suitable representation of the subject and create an appropriate cover for the book.

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List of Contributors

Emmanuel Udekwe and Andre C. de la Harpe
Graduate Centre for Management, Cape Peninsula University of Technology, South Africa

Zamokuhle W. Shabane
Department of Defence, Pretoria, South Africa

Cecile M. Schultz and Catharina E. van Hoek
Department of People Management and Development, Tshwane University of Technology, South Africa

Patrick W. Bwowe
Department of Finance and Management, Walter Sisulu University, South Africa

Newlin Marongwe
Division of Academic Affairs and Research Development, Walter Sisulu University, South Africa

Marita M. Heyns
Optentia Research Focus Area, North-West University, South Africa

Marilyn D. Kerr
North-West University Business School, North-West University, South Africa

Kelebogile D. Magano, Adèle Thomas, Renier Steyn and Gideon de Bruin
Department of Industrial Psychology and People Management, University of Johannesburg, South Africa

J.W. (Cobus) Pienaar
Arbinger Institute South Africa, South Africa

Petrus Nel
Department of Industrial Psychology, University of the Free State, South Africa

Adele Oosthuizen and Gerhard H. Rabie
School of Industrial Psychology and Human Resource Management, North-West University, South Africa

Leon T. de Beer
WorkWell Research Unit, North-West University, South Africa

Claude-Hélène Mayer, Christian M. Boness and Lynette Louw
Department of Management, Rhodes University, South Africa

Gregory J. Lee
Wits Business School, University of the Witwatersrand, South Africa

Ebben S. van Zyl and Joyce Ras
Department of Industrial Psychology, University of the Free State, South Africa

Rose B. Mathafena
Sasria Insurance Company, Johannesburg, South Africa

Maria Sachane and Chris Botha
Department of People Management and Development, Tshwane University of Technology, South Africa

Adéle Bezuidenhout
Department of Human Resource Management, University of South Africa, South Africa

John K. Aderibigbe and Themba Q. Mjoli
Department of Industrial Psychology, University of Fort Hare, South Africa

Tanja Koch, Charlene Gerber and Jeremias J. de Klerk
Department of Business Management, University of Stellenbosch Business School, South Africa

Walter Wessels
School for Business Management, North-West University, South Africa

Engelina du Plessis and Elmarie Slabbert
Tourism, Research in Economic Environs and Society, North-West University, South Africa

Anusha Karamchand and Emilie J. Kistnasamy
Department of Community Health Studies, Durban University of Technology, South Africa

Renier Steyn and Anton Grobler
Graduate School of Business Leadership, University of South Africa, South Africa

Magda L. Bezuidenhout and Mariette Coetzee
Department of Human Resource Management, University of South Africa, South Africa

Mark H.R. Bussin
Department of Industrial Psychology and People Management, University of Johannesburg, South Africa

Reuben George, Manoj Chiba and Caren B. Scheepers
Gordon Institute of Business Science, University of Pretoria, South Africa

Pule Mphahlele, Crizelle Els, Leon T. de Beer and Karina Mostert
WorkWell Research Unit for Economic and Management Sciences, North-West University, South Africa

Rosa Naude, Stefan Kruger and Melville Saayman
Tourism Research in Economic Environs and Society, North-West University, South Africa

Leon T. de Beer
WorkWell Research Unit, North-West University, Potchefstroom Campus, South Africa

Cara Jonker
School for Human Resources Management, North-West University, South Africa

Claude-Hélène Mayer and Delene Visser
Department of Industrial and Organisational Psychology, University of South Africa, South Africa

Sabie Surtee
Higher Education Resource Services Network in South Africa, Cape Town, South Africa

Hendrik J. Pelser, Anita Bosch and Willem Schurink
Department of Industrial Psychology and People Management, University of Johannesburg, South Africa

Mark Bussin, Michelle Nicholls and Ronel Nienaber
Department of Industrial Psychology and People Management, University of Johannesburg, South Africa

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