Handbook of Education Systems in Asia

Edited by:
Oscar Alberto Ramirez

SOCIETY Publishing

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
CPSC	Colombo Plan Staff College
DPP	Democratic Progressive Party
EFA	Education for All
EQ	Emotional Quotient
ICT	Information and Communication Technology
IoT	Internet of Things
IQ	Intelligence Quotient
MDGs	Millennium Development Goals
MEXT	Ministry of Education, Culture, Sports, and Technology
OECD	Organization for Economic Co-Operation and Development
PISA	Program for International Student Assessment
PRC	People's Republic of China
PSA	Pre-College Study Abroad
ROI	Return of Investment
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations Children's Fund
VR	Virtual Reality

SUMMARY

Although the financial crisis has affected Asia, the region is still expected to achieve its educational goals. In terms of basic, primary, and higher education enrollment rates, the region's numbers gender disparity continues to decrease. Simply expanding the enrollment numbers is not enough. This volume shows that the dropout rate in the region has been high, and it is necessary to improve the nature of education in order to provide helpless families with better motivation and support tools to keep their children in school. Some of the topics covered include: Chapter 1: "Early Childhood Education in Asia;" Chapter 2: "Primary School Education in Asia;" Chapter 3: "Secondary School Education in Asia;" and Chapter 4: "Tertiary Education in Asia." The volume covers many achievements in the region and the difficulties that still exist in education. It explores various ways to respond to changes, revising the teaching framework to improve the quality, and establishing support networks for students and teachers.

PREFACE

Education is the best tool to escape poverty and the realization of goals. Educating young people to read and write can improve their employment opportunities, plus they can be better adjusted to their national development goals-all of which rely on the dissemination of information to achieve fruitful results. This volume presents education literacy as a necessary tool for progress, which provides a new impetus to increase the enrollment rate of children, especially in Asia and the Pacific. Asia is a perfect example of expanding school enrollment; however, the region faces huge obstacles in developing a first-class education system.

Asia is a good example of how to overcome adversity by educating children. The numbers may vary from one country to another, but generally today, 9 out of 10 young people in the region are enrolled in elementary school. For a region with 66% of the globe's out-of-school kids in the 1970s, this progress is amazing. The volume captures this information in the following chapters: Chapter 1: "Early Childhood Education in Asia;" Chapter 2: "Primary School Education in Asia;" Chapter 3: "Secondary School Education in Asia;" Chapter 4: "Tertiary Education in Asia;" Chapter 5: "Open and Distance Education in Asia;" Chapter 6: "Education Development in Asia;" Chapter 7: "Costs and Financing Education in Asia;" Chapter 8: "Challenges in Education in Asian Countries;" Chapter 9: "Educational Transformation and ICT in Asia;" Chapter 10: "School Reforms and Democracy in Asia;" Chapter 11: "Education Trends in Asia;" and Chapter 12: "The Future of Education in Asia."

Although much progress has occurred over the past decade, indicators still show a serious shortage of education and human resources at various levels throughout the region. This reality may weaken Asia's high economic aspirations. Experts say that in today's globalized job environment, competition comes both locally and internationally. Classrooms must attend to a changing job market, and in many countries, classrooms require more and more expertise based on technology and information technology. For Asian countries seeking to accelerate growth, people with higher skill levels are crucial. Education and training will be at the core of sustaining economic growth and the strength of the Asian economy. Elementary school is the first foundation of any education system: higher levels of success depend on the quality of the foundation. By the end of this century, the Asian community began to promote universal primary school enrollment in order to drastically reduce the illiteracy rate. Much depends on how education systems can handle and respond to changes.

In particular, South Asia has seen a large group of people under the age of 25 seeking education to face the challenge of unemployment. Human capital is an important part of economic development; however, in many countries, from elementary school to middle

school and higher education, the governments are not keeping pace with the times. A shortage of education directly translates into a shortage of skilled workers, which may put the growth prospects of countries in danger.

Although Asia is a dynamic economy with high demand for skilled labor, compared with other developing regions, the region is also facing a widening gap between education output and labor market demand. Due to the rapid development of the labor market, more resources and innovations are needed to improve the quality of education at all levels to meet the needs of labor. Asian countries must examine the education continuum, and determine how to implement all-inclusive reforms that address the challenges they face

Chapter 1

Early Childhood Education in Asia

CONTENTS

1.1. INTRODUCTION

Education is said to be the foundation for a better future for society globally. By having an education, individuals get to learn various aspects of the world and in other circumstances, understand what needs to be done in order to be helpful in society. Education can be visual or could be cognitive. In most parts of the world, education has evolved, and individuals have to go away from the home compounds in order to acquire the required education (Figure 1.1).

Figure 1.1. Education is a foundation of a better future.

Source: https://blogs.worldbank.org/education/educating-future-case-east-asia.

In fact, it is very important for children to access good quality education and care outside the home premises. This is so because, by having this type of education, they can have the ability to acquire both the basic language and cognitive skills. Such skills may in other circumstances be acquired in the home premises but may be further flourished by them going to school. Emotional competency and social competency can also be fostered by embracing these programs. Ideally, educationalists all over the world are in agreement that childhood education and care, especially in the early stages, forms a basis for the foundation of high-quality education. Looking at education, when children have the best education, especially in the early stages, the chances of such a kid to be smart in their future education and further when it comes to making decisions in their lives (Vickers et al., 2013).

The world is showing their interest in early childhood education, considering the fact that the world is always changing, and in simple terms, smart individuals are required in order to survive in this current world. The economy is becoming quite difficult, and the only approach that is well known is by having the best education. This is the reason why one would find a good number of parents trying to fit their kids in some of the best schools from the time they are young until the time they become adults. In fact, in most sectors of the world globally, there has been a known number of cases of the development of programs that focus on the early stages of the child. These programs are implemented in order to ensure that the kids have had the ability to reach their full potential and further the families they live with. As such, other countries have taken the initiative to make education either free or quite cheap in order to ensure that the children in the society have access to education. This is mostly happening in the underdeveloped countries and the developing ones. The World Bank has even taken an initiative to support some of such countries by providing scholarships to some of the best students that have been a result of the quality education provided. As a matter of fact, when it comes to supporting towards early childhood education, the input is normally from a number of multiple services and the sector entry points, such services and sectors that normally take part in trying to improve early childhood development include nutrition, child protection, education, and health (Figure 1.2).

Figure 1.2. *An ECD teacher is more involving with the children.*

Source: https://resilienteducator.com/classroom-resources/strategies-for-teaching-students-with-behavioral-problems/.

Even with a number of articles and evidence around the world trying to educate individuals on the importance of early childhood education, it is

evident within itself that education is vital in this world, especially in the early stages as they act as the building blog of an individual's entire education life. When the children avail themselves in the school compounds, it is quite clear that they come from different backgrounds, families, knowledge, and experiences. On the other hand, the teachers come to the students with certain levels of training and skills for teaching a particular set of individuals. As such, one would find that there are teachers that are specifically meant to provide education to children in the early stages. Others are equipped to teach the student at the primary level, the secondary level, and even the higher learning level (Brock and Symaco et al., 2011). When children are young, they tend to be very emotional, and this is the time when they find an individual to emulate. As such, their teachers are specifically trained in a way that ensures that they can be able to understand each other in the classroom. In most cases, the early stages may seem to be the easiest class to teach, but to the surprise of most individuals, it might prove to be the hardest level to be involved in. This is because these teachers have to deal with young individuals that have different backgrounds, and as such, they tend to have a different understanding of the facts of the world. As such, the teachers need to find a way to let the children at least have the ability to think in a particular direction. In addition to this, the teachers act as the role models of these young ones, and hence, their behavior needs to be top-notch. The ability of different countries to provide the best and quality education in the early stages of a child's life varies. Different countries have different approaches. It might prove quite difficult for a number of countries to have a commitment to early childhood education given the fact that there are a lot of sectors in a particular country that normally needs the attention of the country. Such include the sustainment of the political will of a country, addressing issues that require urgent attention, and further some issues that cause some of the most devastating setbacks. Taking an example of Nepal. The country's socio-economic progress, the political instability, and amidst all this, the impressive gains in early childhood education have been on the radar since the earthquake that occurred in April 2015. By looking at the progress in this country, researchers have had the ability to show how fragile the progress can be given the fact that some of the disasters are very hard to come from. This is normally the case when considering low-income countries (Valk et al., 2010). As such, the developed countries try their best to chip in to help the individuals in such countries in order to ensure that the children in such states are able to get the same opportunity as those that had the privilege of growing in better countries. The world is becoming a global

village and thus every member of the society, considering where they get to be born, has an equal opportunity in the world. All children need to have access to better education in order to ensure that the future of the world is at bay since all countries are considered to be very important in order for the economy to be better (Figure 1.3).

Figure 1.3. *USAID in Asia trying to promote ECD.*

Source: https://www.globalcommunities.org/rwanda-twiyubake-ecd-workshop.

The Asian region comprises countries that are highly developed and some of the underdeveloped countries around the world. This chapter aims at looking at the current state of early childhood education in these parts of the world, especially considering those that are gaining from some of the major agencies in the world such as the United States Agency for International Development. In most parts of the Asian countries, the national governments are trying their best to try to prioritize pre-primary education, especially when considering the expansion of access to such education systems and further the improvement of the quality of the education systems at this level. As part of a coherent program for the USAID to improve the quality of education past this point of life in a child's education, the aim is to improve or rather support the programs that have been set aside by the Asian government (Spolsky et al., 2012). This is a better approach in order

to ensure that the long-term plan of helping children with their education. In most cases, the top students normally have the chance to get a scholarship from the various organizations and investors that avail themselves in some of these developing countries. Early childhood education forms a basis for the development of a child's brain and the smarts that the child has. By supporting all the children in the early stages, especially when such children do not have a chance on their own, they are provided with an opportunity to compete with their counterparts that are born in families that have the capacity to support their education by putting them in very good schools.

1.2. EMERGENCE OF EARLY CHILDHOOD EDUCATION AS A FOCUS FOR EDUCATIONAL DEVELOPMENT

There is a very strong link between early childhood education and early childhood development. This statement combines various aspects in a child's development, including the education of a child, their nutrition, health care, protection of a child, and further their cognitive stimulation. In this case, one considers the life of a child from the time that the mother is pregnant up to a point when these children achieve the age of 8 years in which they are helped in order to ensure that they have the capacity to reach their full potential. Early childhood development may ensure that the impact on the child's life is positive. There is long-lasting evidence from the research done by the educational scientists showing that with early childhood development, there is normally high returns especially in terms of a young one's brain development, ability to learn and grasp some of the complex aspects, and further better social, economic, and emotional outcomes (Bray et al., 2014). In Asian countries, data shows that there is a positive correlation between the children completing primary education ad having the ability to have access to better and quality early childhood education. In order to ensure that the quality of early childhood education is promoted, UNICEF has had the ability to develop a program that can be able to ensure the development of the education of children in these areas, especially in the early stages. There has been the establishment of the Asian Pacific Regional Network of Early Childhood, formally known as ARNEC, which was brought into action in 2008. This program has been able to provide benefits to the individuals in the region. This is so because, following its establishment, there have been over 100 experts that have been brought together to ensure that children have had better development in their early stages. The experts that have

been brought to play include those of the education and health sector and further the experts from social welfare. All these experts are individuals that have the children's interest at hand to ensure that they have the capacity of being brought up well. The experts were brought from over 18 countries to effectively examine the policy that was used on the children. The policy that was under consideration was the ECD policy, how they are being governed, and the financing of the same by the stakeholders in the region (Figure 1.4).

Figure 1.4. *There are a number of benefits associated with early childhood development.*

Source: https://childventures.ca/blog/2017/04/benefits-early-childhood-education/.

Most and even all of the educational experts are in agreement that the provision of quality education to kids in their early stages before they get to primary school is vital in the development of a child, especially for their education. Studies that have been done by these educational experts show that there are a number of benefits that accrue as a result of children having been exposed to better quality education in their early stages. Some of the benefits that accrue from such instances include lower grade retention rates, later having academic achievements such as having a master's or a doctorate, higher secondary graduation rates, and eventually higher returns on investments. For the first time, in a very long time, the United Nations Sustainable Development Goas have taken an initiative to focus on early childhood education with a call for children from both genders to have equal access to better education (Synott, 2017). All this has been an area of focus given the fact that at this stage, children need to have better

development, care, and good pre-primary education to ensure that these kids have the ability to be prepared for primary education. The timeline of this program is by 2030. This means that they need to ensure that by the year 2030, the various families and the countries all over Asia have the capacity to ensure that children are exposed to better quality education for the years to come. Investing in early childhood education is one of the current education strategies that has been proposed by USAID. Some of the activities performed by these individuals involve the elevation of the roles that are provided by the funding of early childhood education in a policy that was agreed upon in a sitting done in 2018.

Despite this step by the USAID, there are a number of challenges that most countries around the world face, especially when it comes to early childhood development. One of them includes addressing the inequitable access to preschool. With this, one considers the fact that individuals are trying to scale up the innovative process to quality education and further having the ability to strengthen the early childhood workforce, which is taking up a lot of time. Furthermore, there is a lot of issues involving the political and financial commitment of most states towards the development of early childhood education. This is a very serious aspect in the life of the kids since when looking at early childhood education, there needs to be critical thinking when dealing with the staffing of the schools, how the delivery of the education is going to be done. Furthermore, one needs to look at the partnerships that exist between the public and the public sectors, promoting innovations that may prove to be helpful for the learning society and further promote the ideas involving collaboration and cross-country or international learning. Al these aspects are so to ensure that there is uniform learning given the fact that the world is becoming one and there needs to be a way to merge the knowledge of the kids so as to ensure that there is a better understanding among them in the years to come.

The greatest challenge facing the educationalists Is in defining what high-quality pre-primary education specifically looks like. Furthermore, the difficulty is in assessing or rather determining what it actually entails. Various researchers around the world have come together in order to agree on exactly what quality education entails. This especially when considering the constituents in the early learning environments. A recent report provided by an educational researcher was trying to provide some of the importance and the vital role of early childhood education. The report concludes that early education is very important especially when it comes to the development of the brain of a child (Silova et al., 2007). The report noted that some of

the factors that ensure that there is the promotion of early learning include parental involvement and high-quality books. Furthermore, the researcher claims that in order to ensure that the better skills that are acquired in the early stages are maintained, the ones in charge of the child's education need to ensure that they get to better quality (Figure 1.5).

Figure 1.5. *Children in the marginalized areas of Asia.*

Source: https://blogs.unicef.org/east-asia-pacific/are-children-ready-to-learn/.

Primary schools. In order to further ensure that there is better childhood development, especially in the early stages, there need to be better relationships or rather supportive interactions between the teachers and the children. Furthermore, there needs to be no gap between the children that have easy access to better quality education and those that are in marginalized areas. This can be done by ensuring that funds are able to reach the children that are in marginalized areas. This help can also be provided by allocating good teachers in such areas and further providing them with better allowances. Consequently, this can be done by training the teachers in such areas in order to ensure that the knowledge gap has been filled.

1.3. INTERNATIONAL SUPPORT FOR EARLY CHILDHOOD EDUCATION IN ASIA

For many years, international organizations have been performing the task of supporting Asian countries in various sectors. This includes early

childhood education, which is becoming a priority. It is quite clear that in order to ensure that one gets a strong building, the foundation needs to be strong. Just like a building, human beings' development is normally strong if they have a strong foundation. This means that there needs to be a proper education provided in their early stages in education in order to ensure that their brains have been developed for the sake of their success in the future. A conference that was held in Jomtien in 1990 involving the education for all (EFA), there was a first commitment made by the entire international community involving early childhood care and education. However, the real support that was made towards this sector was in 2000, which passed as a goal for the EFA policy. In May 2015, the Incheon Declaration was rather a step up since it helped specify the aspirational concrete objectives for early childhood education. The requirement in this declaration was that a child needs to have at least one year of free pre-primary education. This declaration was compulsory to all individuals across Asia. The declaration further provided the minimum amount that the government was required to invest in the education sector (Burchinal et al., 2010). Furthermore, the civil society was required to engage in supporting the government in the policy on reforming the early childhood education sector. There have been a number of international bodies that have taken the initiative to support the developing countries in the promotion of the early childhood education system. Some of such international bodies include the United Nations children's fund (UNICEF), the United Nations Educational, Scientific, and Cultural Organization formally known as UNESCO and the Global Partnership for Education, formally known as GPE. These bodies have formally taken the initiative to ensure that children all over the world get access to quality early childhood education, ensuring that the policies are effective and the standards are being followed. Furthermore, they ensure that there are plans and systems that have been put in place to ensure that early childhood education has been catered for. Consequently, it should be noted that the policies and plans that cover the early childhood education system have not been misplaced. According to a number of educational researchers; having a policy document on early childhood care and education should be considered as the first step towards effective and coherent planning and implementation of early childhood education provision. However, it should be noted that in order to ensure that the policies are effective, the country requires a strategic plan to follow in terms of guiding the stakeholders and further ensure that they have the capacity to follow up on the expectations they have on a particular policy.

In collaboration with the Southeast Asian minister of education organization, UNESCO has worked towards engaging a number of countries for developing a qualified, motivated, and well-deployed early childhood education teaching force. It should be understood that a good number of individuals normally have the calling of being a teacher. However, it takes a special kind of person to work with the young members of the society within their first few years. The task that these teachers are presented with is quite hard given the fact that they are trusted with supporting the children's basic social, behavioral, cognitive, social, and physical milestones that are experienced during development. Their creativity, patience, and most importantly, a love for the field is some of the factors that need to be considered when wanting to employ an individual or rather tasking an individual with providing education and care for the kids that are below 5 years. Some of the qualities and skills that an early childhood education teacher needs to have include:

1. ***A Passion for Early Childhood Education*:** This is a very important factor given the fact that the process of teaching such children can be real pain given the fact that some may be nagging and some may prove to be really rude in some instances (Ryan et al., 2010). It is with no doubt that education is not a field that an individual can venture into and become both successful and fulfilled. In order to be a prospective educator, especially in the early stages, passion for the same should be your strong suit. The passion should be beyond just the basic issues such as playground fun and learning but should also be able to conquer some of the developmental challenges or rather milestones faced in this field (Figure 1.6).

Figure 1.6. *Early childhood educator being passionate about her job.*

Source: https://www.telegraph.co.uk/lifestyle/get-into-teaching/learning-from-students/.

2. ***Patience and Sense of Humor*:** Children are kind of jovial individuals as compared to teenagers and adults. This is so because these individuals tend to be living at the moment and do not view the world as being complicated. Ideally, it can be said that with no doubt that these are beings that are with a great deal of energy and curiosity. The curiosity of these young members of the society can prove to be wanting, and one needs to have a great deal of patience and bring forth their sense of humor to their classroom each day in order to ensure that the kids have the urge to engage in their daily lessons.
3. ***Creativity*:** This is an aspect that is required in any and every field in the world. In order to help the children learn, the teacher needs to be very creative in the way that they teach the children. This is so because, at this stage, the children come from different backgrounds ad have a different understanding of a number of concepts. As such, the teacher needs to find ways in which she can teach in order to bring the students to agree to a particular concept as is perceived in the education sector. By being creative, the teachers may have the ability to help the children connect the dots in relation to the lessons provided, especially in their current stage of development (Rose, 2009). Education is not that easy, especially for a child that is for the first time being exposed to education. As such, the educators need to adapt lesson plans those children are in the capacity to understand and further incorporate into their daily lives. Furthermore, the educator should have the capacity to provide learning games in their daily learning experiences in order to make the children have an interest in learning each and every day. It is easy to understand that most children find it hard to go to school for the first time since they experience new faces in such places. Making the learning experience enjoyable to them will help the children have the urge to wake up and go to school every day to learn new concepts. Such learning games are very important given the fact that they can help the children be focused on their learning experience every day.
4. ***Communication Skills*:** Being able to communicate to your pupils is a very important concept. It is with no doubt that in the early stages, children can be referred to as sponges but at the same time new to the learning experience. In this case, the

early childhood educators need to know of the effective ways to communicate to the children on their level. This includes having the ability to change complex subjects into concepts that can be easily understood by the kids. Ideally, the educators are under the obligation of communicating with the parents in order to inform them of the progress of their children and what they have been able to achieve during the period that they were left in their care. Through communication between the parents and the teachers, the parents can easily be able to underline the teachable moments in their child's life in order to help them be prepared for their kindergarten life.

5. ***Flexibility*:** It is quite easy for an individual finding themselves in parts that they had not planned for. An early educator is not an exception when it comes to this. It should be understood that they could also find themselves off course even through the day. This normally happens due to unforeseen circumstances or even some of the learning hiccups experienced within the classroom. In order to ensure that the important concepts that need to be taught are addressed in class, a teacher normally makes up a plan. However, even the best plans may not be followed to the latter as an individual may hope for (Robertson, 2008). In order to be able to lessen the stress levels that an individual may experience because of not being able to follow the stipulated plans to the latter, one needs to be flexible. This will even help the educator ensure that things are kept on track.
6. **Understanding Diversity:** When children avail themselves of a learning environment, it is with no doubt that they have come from different backgrounds and environments. This may stipulate for different learning styles. However, these kids need to be able to accept each other, as they are in order to make the learning experience a good thing. The early childhood educators as such need to act as role models and accept these backgrounds and the differences between the kids. Furthermore, they need to have the will to work with a number of learning styles. This will help ensure that all the kids leave the classroom environment satisfied and the teacher having achieved a particular teaching objective.
7. **A Bachelor's Degree in Child Development:** In order to fully understand a child, one needs to have attended school in order to understand how children go about their daily activities. Ideally,

this field is not a one-size fit all teaching career. Consequently, with the right education, future teachers have the capacity to gain the knowledge and experience that can help them become successful in a classroom setting. Having a degree in early childhood development helps future teachers understand the objectives that need to be achieved in the classroom and some of the developmental milestones that they may face in the children's classroom. Having these credentials also have the capacity to market an individual in terms of ensuring that a child is ready for kindergarten readiness. Furthermore, it shows that an individual is equipped with the knowledge of preparing a child for future academic achievements. By going to school, the educator has the ability to understand what concepts that need to be taught in the learning environment that will help the kids understand concepts in their future education levels. When an early childhood educator has access to such knowledge, he/she is able to understand the vital role pre-kindergarten education plays as being the foundation of the child's future academic success.

In most Asian countries, early childhood educators were receiving training from commercial training agencies. Most of these commercial training agencies were collaborating with international agencies or rather the foreign universities in order to provide part-time training to the early childhood educators. The shortcomings were numerous with reduced study durations being the major one. It was not until a couple of years ago that the governments in most of the Asian countries made it explicit of their willingness to support the teacher of early childhood care and education. There have been setups of local polytechnics in various parts of a country in order to offer training to the early educators (Permani, 2009). There are also technical education centers that have been set up for the purpose of providing full-time education to these individuals. As such, they can be able to acquire diplomas and degrees on the same making them eligible for providing education to the young members of the society. This move by the various government helped reduce the exploitation by the for-profit agencies that were initially responsible for providing education to the early childhood educators. This step shows how the government plays an important role in the shaping of public perception. For a very long time, the task of training the early childhood educators was left over for the private sectors, and this came with a number of consequences. One of the shortcomings is that there has not been much growth in the sector to promote scholarships for

individuals that are engaged in this sector especially given the fact that a good number of them are pegged within the certificate level. Ideally, a good number of the early educators are at the certificate level, the diploma level, and a number are high school leavers. These requirements are with no doubt quite low even for those that are entering for a job to become a primary school teacher. Given the fact that this field has been left to be run by the private sector while, on the other hand, the government asking for minimal requirements, the sector's knowledge generation and its leadership growth have not been supported. It is quite difficult for there to be a critical reflection and evaluation of the teacher's practice, issues, and trends in the sector with the knowledge that this sector is not even recognized in the universities and further no systematic teaching and learning research (Figure 1.7).

Figure 1.7. *Most early childhood educators are women.*

Source: https://phys.org/news/2018-03-low-paid-women-workwhy-early-childhood.html.

In most parts of the world, the female gender is involved in early childhood education. This is because of the stereotypical view that women can better handle the children. In Asian countries, there is no exception. The majority of the teachers are female. This becomes a difficult aspect, especially when trying to answer the question that this field is gender-neutral and is very involving. Statistics even show that there are a good number of female teachers in junior primary schools as compared to their male counterparts who are the ones running the colleges. The gender divide significantly dates back to traditional periods, which look at separations in

terms of children's care and education needs. During such times, the caring part was seen as more of a feminine work than a masculine work. The field may be seen as being gender insensitive, but it is with no doubt that, the females in this line of work are doing an incredible job of taking care of the children in the early developmental stages. Apart from ensuring that the teaching force is one of quality, UNICEF has been supporting a great deal of countries in the construction of early learning development standards.

In 2020, the global partnership for education decided to focus on policy- and system-supporting grants whose main aim is to support and help various countries in the sector during the planning and the implementation process. In 2018, there was a revision of the financing and funding framework within the GPE. The aim of this was to ensure that there was an increase and improvement of the funding in the sectors that were most needed (Ng, 2012). The policy was not only implemented in a country but also took into consideration the regions within a country that needed to help, especially while considering the particular themes and subsectors such as the Early Childhood Education sector. Other roles that are played by the GPE is the provision of support in improving data availability, especially when dealing with Early Childhood Education.

Apart from looking at the various ways in which this body can improve the wellbeing of the children, it also serves to improve the wellbeing of the early childhood educators. This is done through the provision of training of the teachers and further taking part in ensuring that they have job security. This is done by ensuring that the enrollment rate improves. The aim is to meet the sustainable development goal 4.2, which has increased the targeted enrollment rate of students to 100% by 2030. The goal states that by the year 2030, they should ensure that all girls and boys have access to quality early childhood development, care, and pre-primary education so that they are ready for primary education.

1.4. FUNDING OF EARLY CHILDCARE EDUCATION AND THE UNIVERSAL FREE CHILDCARE POLICY

The expenditure on childcare has increased in most parts of the world in the past decades. This is so because childcare has become a key policy area in the development of a country. The underlying belief is that supporting or rather by investing in early childhood development is like investing in the future of a country.

Clearly, childhood education was brought into play in the year 2004 after the implementation of the first childcare support policy. The primary aim of this policy was to ensure that there is public support for early childhood care and education in order to reduce the financial burden that the parents have. It is with no doubt that most parts of the Asian countries are marginalized, and thus, the government is taking part in ensuring that the children have an equal opportunity in early childhood education. This policy is implementable to individuals depending on their income level. The policy enabled new parents to have a one-year leave and an accreditation system for the childcare facilities. The second policy was introduced as a subsidy system for the infant system. This is so because there was an announcement of a standard fee that parents would pay for infant childcare. There was a plan implemented in 2006 known as the Saessak Plan, in Korea, which was a long-term strategy to expand public childcare facilities and services. It further ensured an expansion of the basic subsidies for the infants in the childcare facilities and support the childcare fees for low-income earning families. This policy has had a number of supports as well as critics. The supporters claim that it has been able to lift the burden of mothers by reducing their child-rearing cost and further contributing to the positive development of a child as it provides services to them at the point it is needed the most. The critics on the other hand, ask the government to look at the cost-benefit value. At most, the argument is that the policy might not be able to support individuals who might need it the most. The policy is said to be free for all but those that are getting the first priority are the non-working mothers limiting the use of the service by the working mothers.

In most parts of Asia, there are both public and private institutions that provide early childhood education. The public providers are central or recognized by the local education authorities, while the private sector facilities are normally run by a corporation or an individual (Nunan, 2005). The case is that most parents prefer their children to take their early childhood education in the private sector facilities as compared to the public providers. The notion in most parts of the world is that the private sector tends to provide better services when it comes to early childhood education as compared to public facilities.

However, with an increase in support by the government for education in the early stages, parents are seeing it fit to take their kids to the public facilities. There has been a number of effects that have accrued due to children being provided support by the national government. The overall enrollment of children in early childhood education facilities has significantly increased.

The expansion of free early childhood care and education including the fact that there has been a setback with regard to the quality management system and the teacher's qualification. The benefits that accrue from good childhood education are beyond reach and are better explained below.

1.5. BENEFITS OF GOOD EARLY CHILDHOOD EDUCATION IN ASIA AND THE WORLD AT LARGE

The quality of early childhood education in young children presents the kind of efficiency in learning from every experience or encounter. This is from what the children see, do, hear, feel, smell or taste to how they interact with everyone and in the places they go. This not only benefits the child but also indirectly benefits their families and society as well. During the early stages of child development, he or she learns best during periods of interaction with their peer, parents, and educators without any pressures to learn. Some specialist also suggests that effectiveness in ensuring children learn educational and instructional activities in small segments would bring about quality education. In good childhood, education children should be allowed to have some time to interact with their peers such as during the games period. Spending time with each other would improve their social skills, which are highly reflected at future ages. Children have the opportunity to engage with other children and acquire skills that would enable them to listen to others and express their own ideas. They also have an opportunity to learn from each other's temperaments and be able to tolerate each other from the different backgrounds they are raised from. This enables them to make friends, share, cooperate in case they are doing a certain task together, and be accountable for their actions towards each other.

Past studies have in fact shown, the brain sensitivity to the development of emotional control starts from the middle level, increases to the high level from birth to around age one, and declines to the low level where it stays from age five. Good early childhood education thus plays a great role in shaping the brain at the tender Child's age. Reports show that peer social skills start with the low level, increase rapidly from ages one to two, gradually decrease and remain at a medium level from age four (Nagata, 2007). It is important to integrate exploration, play, and peer interaction into the curriculum in early childhood education. Evidence suggests that child-initiated play leads to better cooperation, self-regulation, and interpersonal skills. The child-initiated play has been specifically linked to symbolic representation. Researchers point out that the combination of indoor and

outdoor play involving the use of media, role-play, drawing, and puppets provide numerous high-quality development opportunities for children to create and negotiate with their peers.

Children who receive good early childhood education have more chances of performing better in grade school. They are taught how to be independent of the strong foundations in the quality programs, which build their physical, mental, emotional, and social aspects. They learn how to grasp knowledge and retain it in their memories from a young age. They develop a sense of seriousness in their responsibility and thus more likely to work hard and perform better in school. Therefore, these children have reduced the need for special education instruction in elementary school and beyond. Education places them in a more advantageous position to perform in their future classes. They acquire the motivation to learn from a very young age, and this would develop and be reflected in future years when they desire higher education at the universities and colleges. This would not only help them to have a bright future but also be useful to society by offering their skills that they would have learned in the course of their schooling. The foundations in the good early childhood education would also be reflected in their work or job places as from childhood one has learned how to be sober-minded, independent, and work hard in life. The adult who acquires good early childhood education is more likely to be promoted and offered positions of leadership due to the strong foundation that he or she acquires from this education. In businesses, they would also succeed easily due to factors such as disciple in saving and investing money, being time conscious, and innovativeness and creativity, among other factors. Good early childhood education ensures that one is able to be responsible and continually acquire knowledge that would make him or her better in all spheres of his or her life. This is because one was taught how to always improve in his or her character to be a better person.

The advantages of a good early childhood education would include improved attention span in children. During the early stages, a child is inclined to be curious and interested in discovering new things. Good education at this age would ensure that opportunities for discovering new things are maximized. The new things would be such as new environments, new experiences, and new friends. They would also present a balance on the ability to listen, participate in group activities, follow directions, and work independently. This would develop the skill, which is very vital in life such as concentration and creativity. The skills acquire aid one at a future age to be able to be effective at his or her activities for his or her betterment as

well as for the wider good of the society (Butler, 2015). The child develops abilities to follow directions at a young age. This ensures that he or she is able to cope quickly with new environments where he or she would not be familiar. Slowly but surely the child would learn how to imitate and copy others who are better than they are for his or better survival. A good education ensures that a child does not develop stress or other mental illness when learning because of the foundations put in place in the ability to deal with difficult situations while learning in life. The child is able to adapt quickly to the change that nature throws at him or her in the course of life. Additionally, he or she learns to embrace and be happy at changes as they present opportunities to learn more and be advanced.

Skills, such as crawling, walking, and gym classes or playtime, are related to children's development of social skills and an understanding of social rules and health responsibility. Children tend mostly to imitate others so as to acquire these skills. Health education and hygiene practices are found to have positive effects on children and their parents. Children participating in good early childhood programs with specific hygiene and health guidelines have improved hygiene habits, which often result in healthy weight and height in comparison to children who do not benefit from such practices. This is even later seen in their later life as young adults who have good hygiene practices. They are able to conserve the environment and keep places and they thing clean and well organized.

Moreover, the children who receive good early childhood education are reportedly more confident and curious. They develop skills and knowledge of enthusiasm for lifelong learning. This causes them to perform better in grade school. They learn how to manage challenges and build resilience in moments of difficulty. They are more likely to settle in school faster and ripe the fruits of education promptly. They acquire a long-term ability to learn different things, including playing music, dancing, singing, construction, cooking, among others. Arts can boost children's attention, improve cognition, and help children learn to envision, i.e., how to think about what they cannot see. The ability to envision can help a child generate a hypothesis in science later in life or imagine past events in history class. Intensive music training can help train children for geometry tasks and map reading. However, there is little attention in research to children's use of art and music practices and its effect on developmental outcomes.

In fact, studies have shown that good early childhood education at preschool programs would increase the likelihood of children graduating

from high school with fewer behavioral issues, attending college or higher learning institutions, and becoming responsible young adults. They are future more likely to be involved in vices during the later years of their careers, such as corruption and mistreatment of employees as working stations. The children who acquire good early childhood education are consequently more likely to make their children go through good early childhood education (Choi and Lee, 2008). This is because they would like their children to also reap from the good skills and knowledge acquired as them from a very tender age. The trajectory would also follow. These ensure that the society is filled with more sober and learned people who are responsible for making the world a better place. The parents would also have an easier task in upbringing his or her child is having good morals and values.

As reported by previous studies, Language development starts at the middle level, increases to the high level at around ages one to two, slightly decreases towards age four, and will continue to decrease towards the middle and low levels from then on. Numeracy starts with the low level, increases rapidly from ages one to three, gradually decreases but will be maintained at the high level from age four to five. Thus, a good early childhood education would ensure that a child learns these skills effectively for the future. Research demonstrates that teacher-initiated learning can reduce early knowledge gaps in literacy, language, and numeracy. Numerous studies have concluded that high-quality academic programs involving explicit teaching can have positive short-term effects on IQ scores, literacy, and math. In order to maximize learning, development, and social outcomes, it is suggested that the curricula should combine child-initiated with teacher-initiated contents and activities for better effective learning.

Benefits for literacy for language development and reading are well developed by a good early childhood education. Literacy has also been consistently linked to improved school performance and achievement, as well as higher productivity, later in the life of a child. Several studies suggest literacy should focus on improving vocabulary and listening skills; building knowledge of the alphabetic code; and introduce printing. Reports have shown that children whose parents often read to them show markedly higher scores than students whose parents read with them infrequently or not at all. Research also shows that children quickly establish a stable approach to learning literacy from parents who read to them eloquently (Mok, 2012. In order to do so, it is essential that they be exposed to texts, pictures, books, etc., in different communicative contexts. For example, structured play that is integrated into children's everyday interests can more easily introduce

the fundamentals of written language in a child. This sharpens the child's creativity from a young age. Developing early mathematical skills means that the child discerns relations in space, time, and quantities and acquires an ability to use his or her understanding in communication with others when solving problems, in logical reasoning, and in representation. Longitudinal studies on early numeracy show that a child understands of numbers and numeric relationships can predict later acquisition of arithmetical skills and mathematical competence, which he or she is exposed to. This would be better if he or she is taken through an early schooling program that has good reading programs.

In conclusion, Computer facilitated activities engaged in good early childhood education can have positive impacts on the play and learning of the child. They can tap into a child's creativity and motivate curiosity, exploration, sharing, and problem-solving skills. The use of computers can even eliminate boundaries between oral and written language and allow the visualization of mathematical concepts and relationships in a child's mind. When a child experiences science-related courses early in life, he or she is found to be encouraged to ask questions, think more critically, experiment, develop his/her reasoning skills, read, and write. Studies suggest that children become better problem solvers and even experience a rise in their IQ when they are taught principles of logic, hypothesis testing, and other methods of reasoning. They learn better if exposed to these tasks on the computer during their early developmental stages.

Chapter 2

Primary School Education in Asia

CONTENTS

2.1. INTRODUCTION

Primary school is the onset of education. It is the stage of education where children of lower ages get enrolled in school and start their educational journey. Countries differ in starting ages, with some being three years, others four or five. Education systems in Asia have a goal of ensuring children go through the entire education process without skipping a grade or repeating. In Asia, countries differ in starting ages. For instance, Pakistan enrolls children with 5 years while Afghanistan enrolls children with 7 years. Education is really important among children. It is also among the factors used in measuring the level of development in a country. It also contributes to employment rates and the technological advancements in a country (Figure 2.1) (Mitchell and Desai, 2005).

Figure 2.1. Most governments have enforced rules requiring all children to be educated. They can monitor the number of children in schools by checking student enrollment in different institutions.

Source: https://www.ajc.com/news/local-education/why-asian-students-well-parents-are-the-primary-educators/54Dqdw1fhAMEn5xdsBN5SM/.

2.2. HISTORY OF EDUCATION IN ASIA

Education in Asia was brought about by three major aspects. They include Asia's philosophies, Confucianism, and religion. In Asia, major religions include Buddhism, Christianity, and Islam. These factors influenced the introduction of education in Asia. Teachings given in religion and Asian philosophies pushed for the introduction of education. Asian traditions

differ depending on the culture of the community. Though different, they all advocated for education. The introduction of education was different in different parts of Asia. For instance, in Southeast Asia, it was brought about by religion and Confucianism. Both aspects were incorporated in education. This resulted in some religious views being incorporated into what students learn.

However, the introduction of Western culture in Asia influenced Asian religion and tradition. This caused a major transformation in the education system. This brought about the need for uniformity. Despite Western influence, diversity is still evident. It is attributed to the cultural and difference in economic development among Asian countries. Due to the history and topography of South Asia, they are known for their heterogeneity in culture. Individuals from South Asia follow the Hindu religion (Macpherson et al., 2014). Traditionally, women from these areas were denied access to any kind of form of education. This was strictly applied to women from the lower classes. Some exceptions were made for certain groups of women.

Cultural beliefs influenced the development of a centralized education system. This meant that community members would establish schools. The initiative was to be funded by community members. The same case applied in selecting and employing teachers. In South Asia, most teachers are from the Brahman class. This is because individuals from this class met educational qualifications. Community members from lower classes were required to pay their teachers. However, teachers are highly respected in these areas. Traditionally, teaching was done orally. This method of teaching was mostly used by religious leaders. It was then used in the education system.

Subjects taught differed according to the historical period. For example, among Buddhists, the Nyanya was majorly studied. This is because Buddhism had a strong influence in most parts of South Asia. After some time, Islam entered South Asia influencing education. Muslim form of education became popular in South Asia because methods of teaching suited the learning culture. Students reacted well to reciting and memorizing knowledge. It also placed a lot of emphasis on the person-to-person form of learning.

The history of education in East Asia is different from South Asia in that it was mainly brought about by Confucianism. Confucianism was developed by Confucius who mostly related to oral instruction to pass knowledge. Developments were made resulting in the development of text which was used later on in centralizing the education system. However, community

members had to cater for the establishment of schools, hiring, and paying of teachers. The mode of learning in East Asia was beneficial in that teachers were able to make use of texts and other resources to impart knowledge and morals to students. Many developments were made in East Asia, including the establishment of a civil service examination system. This system allowed only qualified students to get good jobs and places in political positions. Religion still influenced education systems.

Traditionally, the education system in East Asia limited women's access to education. Changes made to the education system did little in improving the situation. Women would get informal kind of education training them to be good mother's ad wives. However, in every historical period, there was an emergence of a woman scholar or poet. Most of these scholars advocated for the need for education in women. Numerous ideologies on education were developed in East Asia (Marginson, 2011). The Orthodox ideology being the most common ideology. It faced a lot of challenges and criticism. This led to the development of intellectual trends seeking to introduce the teaching of practical knowledge.

Education in East Asia changed. Most of the change was influenced by changes brought about by the British in South Asia. They introduced more formal methods of education. Teaching was done with the aim of bringing up future leaders. Among the changes was the introduction of English as a subject. This faced a lot of challenges as English was not the native language. There was a need for interpreters.

The introduction of English in the education system resulted in drift between leaders and citizens more so those from the lower classes. This is because individuals for this class could not understand the language. It became a form of discrimination against individuals from these classes. However, the British helped South Asia develop a central system of education. This system of education was made up of three major levels of education. They include primary, secondary, and college levels of education. The introduction of this system of education sought to eradicate division and discrimination due to race and religious backgrounds. This system is utilized till today. Modernized systems of education were quickly adopted in Asia, with Japan being the first country to adopt them. It reformed its education system. First, they sent officials to countries in Europe and American to study their education system. This way they can better understand their education system runs. This resulted in the creation of a ministry of education as well as establishing institutions of higher learning.

Countries like China were reluctant to reform their education system. This caused them to lag behind. The war experienced in 1895 made China realize the importance of modern education. The improved education system brought about a transformation in the political sectors. China had to quickly reform its education system as most students went to Japan and other countries for educational purposes. This caused the abolishment of civil service examination. The adoption of modern systems of education gave women the opportunity to access formal education.

2.3. ENROLLMENT OF STUDENTS IN PRIMARY SCHOOL

Governments in Asia are working towards improving employment opportunities by ensuring all children attend school. The number of children in school is measured using student enrollment in different institutions. Levels of enrollment differ in countries in Asia. Over time there have been changes in student enrollment depending on the location and gender. In most Asian countries, the enrollment of students in primary school is flat. Most countries aim at achieving universal primary education (Maitra and Mukhopadhyay, 2012). Some countries in Asia are still struggling with student enrollment. In countries like Afghanistan, graphical representation of school enrollment is in the shape of an inverted U. It is attributed to the large numbers of school dropouts. There is a tendency of primary school students from age 4 to 12 to drop out of school.

Some of these countries have taken measures to improve access to primary education. Some of the measures taken include them investing in school inputs. Effects of investing in school inputs include high numbers of students being retained in school. Research shows that these investments have brought about an increase in student enrollment in primary school. In 2000, enrollment increased by 75%. The number of school dropouts recorded in girls has reduced by 59%. As early childhood education is very important to young children, most countries in Asia encourage parents to enroll their children. While in pre-school, students are able to get a stable foundation useful in ensuring a smooth transition to other levels of learning. It nurtures skills that can help them succeed.

Research done by UNICEF shows that a significant number of children do not enroll for pre-primary education. This affects the number of children enrolling in primary education. Parents are encouraged to enroll their students in early childhood education. This results in a significant number of

children transitioning to primary school. Presence of institutions of higher learning influences student enrollment.

Afghanistan has a moderate student enrollment record. The country is still undergoing development; therefore, education quality does not standards offered in other countries. In Afghanistan, children are enrolled for pre-primary education at 4 years. At 7 years, they are enrolled in primary school. Some factors contributing to low records of student enrollment include reluctance by parents to take children to school. The distance between school and home is quite long, making it tedious for students, discouraging them from going to school. The other challenge is that most students are not enrolled in pre-primary school (Figure 2.2) (Cummings et al., 2014).

Figure 2.2. There is a large gap between female and male children enrolled in primary school. This may be attributed to cultural beliefs.

Source: https://en.wikipedia.org/wiki/Sex_differences_in_education.

The huge demand for child labor has resulted in children dropping out of school. The fact that they earn from these jobs makes them perceive education as irrelevant. When primary school enrollment is compared in urban and rural areas, higher records of primary school enrollment are recorded in urban areas. This is because they better understand the importance of education. The government of Afghanistan has put in place necessary measures to improve primary school enrollment. They have put in place measures to introduce free primary education. They are also working

in improving the quality of education. Parents are encouraged to enroll their daughters in school.

In Bangladesh, education is compulsory for all children. They have to pass through 8 years of primary education. It is among countries offering free primary education. The state finances education to the high school level. In private schools, the government pays a certain part of the fees. Bangladesh records very high numbers of student enrollment in a year. However, once students attain 9 years, student enrollment reduces. The decline is higher in males than females (Chiswick and DebBurman, 2004).

Globally, few countries have been able to attain universal primary education. Bhutan is very close to achieving this goal. The gap between male and female enrollment is quite narrow. Children get access to free primary education for 6 years.

Universal primary has been attained by the Maldives. There is still a significant gap in enrollment rates in males and females. Generally, primary school enrollment is still high. There is little information on primary school enrollment in India. This is attributed to the lack of inadequate knowledge obtained from surveys. In countries like Nepal, pre-primary education is offered in certain parts. In a year, there are high records of primary school enrollment of children. While in primary, students learn from grade 1 to grade 8 before they proceed to high school. Students are enrolled for grade one while they are six years of age. After completing grade 8, students have to sit for a basic examination allowing them to proceed to the next level of education.

In Pakistan, student enrollment in primary school has increased from 2013–2015. There are six levels of education in Pakistan. Before moving to primary school, students have to pass through pre-school. They get enrolled in primary school when they reach 6 years. Despite the high rates of primary school enrollment, there is a big gap in student enrollment in urban and rural areas. In Sri Lanka, there are five levels of education. Primary education reaches grade 5. It houses pre-primary education. Once they have completed grade 5, the student may opt to write a national examination allowing highly skilled students to enroll in good schools. Primary education is compulsory for all students. Once they complete primary school, students continue to the next level of education. Once they reach grade 9, they can make a choice of completing their education or moving to the workforce.

2.4. FUNDING OF PRIMARY SCHOOL EDUCATION IN ASIA

In Asia, access to primary education is very important. Over the years, there has been a notable increase in access to primary education. This is evident in the large number of children enrolled in grade 1. The changes in student enrollment are caused by increased funding of learning institutions. Most countries in Asia like India, record-high levels of poverty. This makes access to services like education limited. This is because most families cannot afford to educate their children. This contributes to the large number of girls who are unable to access education. In most low-income Asian countries, primary school enrollment is relatively low. A good example is in India. In India, most schools have been established by the community.

For governments to ensure there is high student enrollment, they have implemented rights requiring parents to take their children to school. One of these rights is the right to education. By implementing the right to education, the government has also been involved in funding schools. Funding primary school has been useful in establishing more schools. These funds are also used in training and paying teachers. It is also used in purchasing learning material (Martin and Chu, 2015). Most countries are required by the education law to use properly use resources to ensure students get access to education. If the resources are limited, the government makes proper use of the limited resources to improve primary school enrollment. Some governments have put in place including the provision of free primary education which would ensure all children get access to education without any form of discrimination.

In some Asian countries, education is given a place in the national budget. Some funds from the national budget should be allocated to financing education. This money should be well utilized in providing free education. Most of these funds go to public schools. However, in well-developed Asian countries, some of the funds are allocated to private schools. Public schools are also funded using local revenue sources such as taxes gotten properties.

Studies show that the provision of free primary education is essential in ensuring all students get access to education. It is most beneficial for students from low classes as the family income is not sufficient to support education more so when there are numerous children. This is the case in most developing countries in Asia. Despite the law requiring the provision of free education, there are countries in Asia still imposing fees. This is evident by the increasing number of school dropouts. Other than school

fees, there are some financial requirements like books and purchasing school uniforms. The challenge in countries like India, there are numerous financial difficulties encountered. This makes it hard for these countries to offer free primary education. It is difficult for them to secure and make primary education compulsory for all. The provision of free primary education requires countries to be fully committed. They need to make it a priority. Most countries in Asia are able to provide free education till primary. Insufficient funds do not allow them to provide free education to tertiary levels.

However, there grants to schools by international organizations. There also some organizations that sponsor a certain number of children. With grants, some countries have joined the Global Partnerships for Education. This organization gives grants to different countries, allowing them to offer high quality education for all (EFA) children. The organization has a Board of Directors who approve the giving of grants. By receiving this funding, countries are able to stabilize their education system (Lim, 2016). Studies show that countries receiving these grants have been able to train teachers, distribute learning materials to all schools and improve primary education. These grants have been useful in providing crucial resources. Its main goal is to ensure children from vulnerable backgrounds are able to access education. They are also working on ensuring girls get access to education. This enables them to thrive in the work environment.

For the Board of Directors to approve giving of a grant to a certain country, the country needs to agree to meet the goal of the organization. Some of the requirements include the country improving the efficiency of its education system. The education system needs to ensure most students stay in school. They should also ensure there is a level ground for competition between students. They should also ensure vulnerable children get access to education. The quality of education provided in those countries should be high. In Asia, Nepal is the only country receiving grants. Grants have been useful in helping them attain high quality education. Records show that Nepal has been given a grant of about 24.4 million dollars. The grant was given majorly to improve the quality of education.

The grant has been useful in boosting the education sector. It has been used in funding educational projects as well as achieving state educational plans. Through the organization, Nepal has been able to access eight partners who have helped them improve educational quality. The right partners help in funding reforms in the education system. They have been useful in

helping Nepal develop a decentralized system allowing the creation of new educational bodies in the government. These bodies work towards ensuring the country meets its educational objectives. The grant is expected to help Nepal minimize the number of children not in school. They are looking towards the adoption of projects to help improve reading. It is important for Nepal to avail of all data on educational budgets. This data is important in making informed decisions. Among the patterns are the GPE multiplier, Asian Development Bank (ADB), and USAID.

The three partners give funds to be used for different purposes. For instance, the GPE multiplier gave Nepal about 15 million dollars to be used in ensuring school safety. The ADB has the same goal. They gave Nepal 64.5 million dollars. USAID gave Nepal a grant of about 3.5 million to improve education. The GPE multiplier gets its funds from the World Bank. Results realized by Nepal were so promising that the ADB topped the grant to 164 million dollars following the approval of Nepal's multiplier (Lee et al., 2013).

2.5. USE OF TECHNOLOGY IN PRIMARY SCHOOLS

Technological advancements have their place in the education system. Most governments have incorporated the use of technology in their education system. This has been achieved through the use of computers, smart boards, and other technological tools. In Asia, countries like China have adopted the use of technology in primary schools. Most schools are able to use computers. However, the level of sophistication varies in school. Research shows that a significant number of primary school teachers use computers in the classroom. They also involve students in using computers. Teachers come up with innovative ways they can use technology in the classroom. China has recorded tremendous results due to using technology in the classroom. Teachers remark that using technology has resulted in pupils being motivated. Concentration spans have increased due to using ICT tools. However, using technology has received feedback. There are those who see the positive impact of technology while there are others who perceive the negative impacts of technology (Figure 2.3).

Figure 2.3. *In most Asian countries, teachers make use of traditional methods of teaching.*

Source: https://www.edutopia.org/blog/5-highly-effective-teaching-practices-rebecca-alber.

The transition to using technology has taken quite some time. This is because the incorporation of technology requires much funds. Most schools cannot afford to purchase most of this technological equipment. In countries like China, the government has helped in purchasing most of the technological equipment. For schools that have adopted technology say that it allows both traditional and modern teaching tools. It has been beneficial in allowing students to conduct self-learning. It has also provided numerous technologies allowing teachers to evaluate their students, identifying their weaknesses and strengths. Some Asian countries have integrated ICT into their school curriculum. The challenge has been whether to teach ICT as an individual subject or incorporate it into other subjects.

Teachers do not teach ICT as a subject in many countries. About 11 countries have adopted the teaching of ICT in schools on a global scale. Some opted for this subject to be taught at higher levels such as high school. Few schools offer subjects such as computer science as an individual subject. However, relevant stakeholders are working to incorporate technology into teaching most subjects. In general, most primary schools use computers in teaching most subjects more so technical subjects (Kosonen, 2005). To incorporate technology in research has been done to help the government better adopt the technology. They make use of this data in budgeting for the integration of technology. However, researchers have advised that the adoption of technology in schools that do not offer commuter science is the best way to go. Over time, it can be integrated. In Asian countries, technological tools have been used in the teaching of foreign languages.

When looking at the education history, languages like English are foreign. It has taken some time for these languages to be integrated into the educational system. The use of technology has proven to be useful in teaching foreign languages. It is a key resource in imparting different skills to children. In countries like India, there is a growing use of ICT tools in teaching foreign languages.

Different countries have different strategies for using technology in teaching students. Technology is considered a teaching material. Primary school teachers are able to utilize technology to their advantage. For instance, they can make use of the internet to get more information on the topic. Most information can be found online. Some schools allow students to access internet networks allowing them to research. Some schools have uploaded teaching material on the internet, allowing students to access them while they are at home. In Asia, the use of technology has resulted in the development of educational applications. China has been heavy in adopting educational applications. They have high records of ICT tools used at home.

This has been highly beneficial in the past year in light of the COVID-19 pandemic. Most schools had to close down to allow social distancing. The use of technology at home has been measured by the number of schools able to continue learning during the pandemic. The challenge with using ICT at home is that it is quite difficult to monitor children as they use technology.

In most Asian countries, a significant number of children are homeschooled. Some parents have been able to adopt the use of technology in teaching their children. However, some parents pointed out some concerns with using technology. This contributes to the number of children using ICT tools at home.

With the growing dependence on technology on a global scale required individuals to have developed digital skills. The challenge in most Asian countries is that most pupils in primary school do not possess ICT skills. Statistics show that there is an increase in the number of children using technology. This has contributed to growing digital literacy (Knight, 2012). Digital literacy is highly recorded in countries like China and Nepal. Digital literacy is measured by checking on students' ability to access and create data on the internet. Their ability to properly use and manage technology. Teachers have admitted that using technology has been useful in developing technological skills.

In countries like China, have been able to make significant technological advancements. These advancements have been brought about by the

adoption of technology in education. It is a useful key in measuring the outcomes of technology in education. Research shows that the presence of technology in learning environments has brought about the development of a learning culture. Some of the impacts of technological integration include improved language development. For example, using whiteboards has played a significant in improving language development. It has also useful in teaching subjects like English and mathematics. Technology has been greatly used in training teachers. This equips them with all the necessary tools. It also enables them to handle different classroom situations. It also ensures that all teachers are digital literate. They can then pass these skills and knowledge to the students.

In Asia, countries like China, Japan, and Korea are more technologically advanced. The same case applies to their education system. When much focus is placed on China, there are certain strategies taken up by China to successfully integrate technology in education.

2.6. CHINA'S TECHNOLOGICAL INTEGRATION IN PRIMARY EDUCATION

For China, technological integration in education is aimed at ensuring that digitally literate individuals are produced for the workforce. They are aiming at producing highly educated individuals who are skilled technologically. This will be useful in ensuring that these individuals help improve the country's economy. The state of education in China has been improving significantly. This has brought about the term 'education fever.' The Chinese government is placing much emphasis on improving the education system. One of the strategies used is incorporating technology in education (King and Guerra, 2005).

The great need for technology in education is driven by the fact that China views education as the focal point in bringing about modernization and equity among all citizens. China's ministry of education places more emphasis on improving technology in education. They are looking towards purchasing more computers to be used in classrooms. They are working towards improving educational informatization. Two main aspects are taken into consideration to improve informatization. One of the measures includes the generalization of technology used in all schools. This aims at ensuring all schools utilize the same technology. The other aspect includes the development of school-to-school projects.

Other plans by the Chinese ministry of education include developing the school curriculum to allow the student to develop their talents while still utilizing technology. They are also working on using technology in teaching foreign languages. All these factors have contributed to the national integration of technology in education. In China, technology is viewed as a major teaching tool and a major resource in the proper teaching of foreign languages. Modernization of education in China has become dependent on technology. China has worked on improving its school curriculum in that students are able to learn foreign languages like English from the first grade. This creates the need for better technological tools from the early stages of learning.

Reforming the school curriculum was done to improve teaching practices. Methods used in transferring information need to be updated to make learning more effective. They also aim at improving class efficiency and creativity in children. By changing the curriculum, there is a change in the normal where learning was teacher-centered. Curriculum reform is very important. It allows the teacher makes use of different teaching materials. Most of these materials are very useful in improving class efficiency. Teachers can make use of audios, videos, and graphical texts. They can make use of online resources to make learning much easier. The new learning system focuses on the student gaining most of the knowledge on their own. Technology has played a major role in changing the learning curriculum. It is more beneficial in allowing students to be more creative. Students are able to better communicate their issues. They are also allowed to take on new tasks. Research shows that the successful adoption of technology is dependent on teachers. The teacher's reception of technology determines whether students view the integration of technology positively or negatively. There is an excessive demand for digitally literate teachers.

China is looking forward to the day and age where teaching will be technologically supported. This means that machines will replace teachers. They have already put in place measures to replace teachers with machines. The challenge is that replacing teachers with machines may not be as effective. This is because machines are not as understanding as human teachers (Faragher et al., 2021). Human teachers are able to develop a friendly interaction with students understanding their weaknesses and strengths. This way they know what tools they can use for effective learning. This may not be the same with machines. Ever since time immemorial, teachers have been trained to do what they do best. During the training, they are taught how to interact with students and how to handle different classroom scenarios.

With China opting to integrate machine learning, they have to consider the level of effectiveness. Research has been done to evaluate the extent of effectiveness. Research shows that machine learning is effective for easy subjects. In as much as technology has been useful in making complex subjects much easier, it may not be advisable to fully depend on machines to transfer knowledge to children. Even with the advancements in technology, it may be quite difficult to effectively conduct machine learning. However, some researchers believe that machine learning may be effective for certain groups of children. The effectiveness of learning is dependent on the type of digital infrastructure used. The environment should be conducive to allow a technological environment.

Machine learning may be effective. However, it may require the presence of a facilitator. A facilitator may not be present for students in higher levels of learning. Their minds are in a better capacity to understand the different technological tools. The same case cannot be applicable for children in primary school. Children at younger ages may require certain information to be repeated. Also, the manner in which information is delivered also matters. Human teachers are able to assess all students and pick a teaching method effective for all students. They are also able to utilize different available resources. They are able to identify slow learners and fast learners. Using a technological program to teach young children may not be as effective. For children, the teacher should be very important. Technological tools can be used as an added bonus. For children in the first grade, technological tools like videos make learning more active. The use of songs heavily engages children.

Traditional methods of learning used in China need to undergo some changes for it to integrate machine learning. To some greater part, most students cram knowledge as the information is tested. Shifting the focus on understanding concepts could be more beneficial as it could better allow integration of technological learning. The full integration of technology in education is heavily dependent on digitally literate teachers. Many countries in Asia have not been able to adopt the use of technology (Kirkpatrick and Liddicoat, 2017). As mentioned earlier, the adoption of technology may be quite difficult due to financial issues in most of these countries. Most of these countries are unable to ensure most students stay in school. Most of the governments are unable to ensure free primary education. With a large amount of money required to make technological advancements, it is quite difficult for these countries to integrate technology into education.

Some countries are still experiencing delays in technological integration. Countries like India are working towards adopting technology in education. Some schools have already taken steps to adopt the technology. Nepal has utilized some of the grants given to them by GEP to improve and integrate technology in their education system.

2.7. QUALITY OF PRIMARY EDUCATION

It is very important for children to access good quality education. This is because quality education enables children to acquire basic skills and enjoy the process of acquiring knowledge. The quality of education in Asia has been improving over the years. Reforms made in the education system in most countries have been useful in improving the quality of education. For countries like China, Japan, and Nepal who have been able to incorporate technology in their education system, it has contributed to good education quality. However, in most Asian countries more so developing counties, the quality of education is not as good. To better understand education quality identifying it either as good or bad quality, the education system should be viewed independently. There are different components of the education system. They include input, processing, output, and feedback.

With input, students resemble raw input. When they are brought to school, they are to receive knowledge. Other elements considered as input include learning materials, school curriculums, educational resources, and teachers. The next part is processing. This is where all inputs are used, combined, and refined to produce desirable results. The students receive knowledge hence they are in the refining process. The processing stage is the teaching or learning process. It could also mean the utilization of different resources in reaching educational goals. Output refers to the product of the learning process. It is represented by students' grades and level of performance. Feedback is a very important component in education. It enables us to identify whether the education system is effective or not.

Goals and objectives met by students are useful in determining the effectiveness of the education system. Different criteria are used in measuring education qualities. Education is said to be good when students are highly motivated, nourished, and healthy, proper learning techniques are used in the learning process, an effective learning curriculum has been adopted, and the presence of well-trained teachers and the community is actively involved in ensuring all children acquire education (Forlin and Lian, 2008). However, in most Asian countries like India, most individuals like under the poverty line.

Therefore, numerous measures need to be put in place to ensure children get access to quality education.

In most developing countries in Asia, most children are not healthy as they are not able to access food and other social amenities. This means that they are unable to access good quality education. Their need for food makes it difficult for them to concentrate in class. They are not motivated to learn. Economic turndowns in most countries in Asia have increased the number of people living under the poverty line. Examples of countries that suffered from economic turn downs include Indonesia and Malaysia. Research shows that Indonesia greatly suffered from the economic turn. This has significantly affected their education system as well as the quality of education. The impact is so severe that a whole generation suffered. The generation in question was unable to access education. This has contributed to high rates of unemployment in those countries.

Teachers play a vital role in providing quality education. To provide high-quality education, teachers need to be highly trained. They should demonstrate high levels of commitment and motivation. This ensures that teachers are competent enough to perform their duties. Other than training, there is a need for sufficient numbers of teachers in classrooms. A sufficient number of teachers in classrooms is useful in ensuring that the student-teacher ratio that will allow quality learning. Therefore, the provision of good quality education means that there is a sufficient number of well-trained teachers who are motivated to teach. The challenge in countries like Indonesia, there is a limited number of well-trained teachers. This means that there are high rates of understaffing in schools. Some students may not get access to teachers. For schools having limited teachers, these teachers are constantly overworked. There is a large student-teacher ratio making learning ineffective. For instance, 50 students being taught by one teacher. In this scenario, it may be quite difficult for the teacher to attend to all students. Slow learners and weak students may suffer in the process.

In most of these countries, teaching is not a well-admired profession. This is because teachers are underpaid. This results in a limited number of individuals studying education as a profession. This makes it hard for schools to meet the demand for teachers. Among factors contributing to good quality education is the availability of resources. Classrooms are among these resources. The classroom needs to create an environment suitable for learning. It allows learning to continue even when harsh climates are experienced. Classrooms need to be adequate to allow the proper distribution of students

in a class. For most schools in Indonesia and Malaysia, there are inadequate classrooms. Some of the learning institutions are outdated. This presents a challenge in providing quality education. Insufficient classrooms result in large student populations in the classroom (Green, 2013). Congestion in classrooms makes it difficult for students to concentrate in class. It presents a challenge for teachers to meet student's needs. Apart from classrooms, there are insufficient resources. Most students are unable to access resources such as books and writing material. There is also the challenge of a lack of proper guidance and management of school resources. This results in mismanagement of funds given to schools to improve the availability of resources. A number of measures have been put in place to improve the quality of education in Asian counties.

Among measures taken include training of teachers and other school leaders. It is important for the government to ensure that all teachers are well trained and highly skilled. This allows flexibility in teaching. They are able to utilize all necessary resources to make learning more effective. Apart from training teachers, it is important to encourage creativity and innovation among teachers. They can utilize readily available resources making learning more effective. Stakeholders in the education sector are working to ensure all teachers are motivated. Different strategies have been adopted to help in ensuring qualified teachers are employed to educate children. One of the approaches is competency-based.

Most Asian countries have the challenge of an inadequate number of qualified teachers. This is attributed to the fact that teaching as a profession is not quite attractive. Few individuals are pursuing teaching as a profession. It is very important for stakeholders in the education sector to ensure that education is made attractive and is made similar to other professions. This is achieved by creating a conducive teaching environment. Some governments have invested in the training of teachers. This allows future teachers to get all the needed training before employment in different schools. The provision of such training encourages more individuals to take up teaching as a profession. To ensure that all teachers have been trained, some countries offer workshops. All teachers need to ensure that they have attended these workshops.

Most of these workshops have been useful with the introduction of technology. It allows teachers to gain all the needed skills allowing them to survive in different work environments. Countries are also working on improving teacher's salaries. Those teaching complex subjects will

be paid more. The same case is applicable for teachers who have to offer their services in distant areas more so those in rural areas. In Malaysian, the government is working towards providing housing, cars, scholarships, and loan privileges for teachers. Scholarships given to teachers allow them to learn at the highest level possible. This is all in an effort to make the teaching profession more attractive (Kapoor, 2009).

The Malaysian government is working towards adopting new educational policies. The new policies aim at improving student achievement in certain subjects said to be difficult among children. Some of these subjects include science, math, and foreign languages. The new policy focuses on using English as the main language to be used in teaching math and science-related subjects. The major setback is inadequate teachers to do so. The Malaysian government has initiated training for teachers and facilitators, allowing them to use English in teaching complex subjects. In Singapore, the ministry of education has initiated programs seeking to boost talent among children. These programs have also been used in re-evaluating teacher roles.

Countries are working on their curriculum. Most countries like Japan and China have revised their education system, making it relevant to the education system. Recent advancements in education include developing children's talents. Other than talent, it is important for teachers to ensure that students are equipped with skills relevant to the work environment.

Singapore's ministry of education has adopted the looking-forward curriculum. It has proven useful in imparting important knowledge and skills. The curriculum provides teachers with assessment tools allowing proper assessment of individual students. Among the changes made to the curriculum include the integration of technology in the education system. The syllabus has also been revised, making it shorter. Thailand has been able to attain high-quality education after they integrated a core curriculum specifically for primary education. Their newly adopted curriculum aims at preserving the Thailand culture. Their curriculum also students learn about other countries. This brings about flexibility.

Efforts have been made to help poor students. For example, in Indonesia, the ministry of education has developed programs to allow vocational training for students. This allows weak students to gain more skills. When Indonesia experienced an economic turnaround, it resulted in high rates of unemployment caused by lack of education among most pupils (Jensen, 2012). The same case was experienced in Brunei. The ministry of education is working towards improving the situation by ensuring that skills needed in

the work environment are taught to students. This makes them compatible with the work environment. Reforming the curriculum needs funds. In Thailand, the ministry of education has created opportunities for other stakeholders to be involved in making decisions. They have been involved in tackling challenges in the educational sector.

Another major challenge to ensuring good education quality is inadequate resources. Some of these resources include learning materials such as books. Textbooks tend to be expensive. This has brought about reluctance by schools in purchasing such resources. This creates a major setback in learning. Countries like Thailand require all students have access to numerous learning materials. The development of the internet allows both teachers and students get access to learning material available on online platforms. Countries like Indonesia record gaps in textbook acquisition. There is a huge gap in the number of textbooks in rural and urban areas. The ministry of education is working on increasing textbook supply in rural areas. They are also working on providing primary schools with learning materials. Countries like Singapore have been able to dedicate a significant amount of money from the educational budget to be used in purchasing learning materials as well as improve the condition of most learning institutions.

Most schools present today are those established by colonialists. This means that they are old and probably unsafe for learning. These funds have been used in establishing new schools. There is also the integration of ICT in learning institutions. Its integration has been useful in improving the quality of education. ICT provides numerous resources useful in teaching. In addition to the use of computers in schools, other forms of technology have also been adopted. Countries like Thailand have integrated the use of broadcast media in educating students. Teachers have been given access to media houses. They are allowed to conduct learning activities for both formal and informal pupils. However, teachers conducting broadcasts need to be educated. There plans to fully integrate e-learning.

2.8. EQUITY IN PRIMARY EDUCATION

Equity means that all individuals are given equal opportunity in accessing resources, among other things. In terms of education, it means that all children get equal opportunities in accessing education. Therefore, children are not discriminated against according to their gender or background. Asia's educational history has contributed to some of the gender equality of

today. This is because traditionally, women were not allowed access to any form of informal education (Jacob and Lefgren, 2004). They were educated by their mothers or grandmothers at home. They were mostly taught how to be good mothers and wives. Some privileged girls from rich families were able to access some education. The changes brought about by the coming of British to Asian countries have contributed to increased enrollment of girls.

Equity in the provision of primary education has increased over the years. Children from different backgrounds are able to access good quality education. The provision of free primary education has level the field allowing children from both rich and poor backgrounds to get access to education. Girls are also being encouraged to enroll in schools. With female education, it has faced numerous challenges, among them being the fact that female education was not valued. Also, religion influenced the teaching of girls. Most cultures have undergone some changes to allow education for girls.

Some countries in Asia like Japan and China have been able to ensure equity in education. Some of their laws enforce this. For example, there are laws making primary school education compulsory for all children. They have also adopted the provision of free primary education, making the goal more achievable. They have also invested heavily in improving the education system. They provide learning materials to primary schools. This has contributed to creating a level field allowing equity in education. However, ensuring equity in education is still a challenge to developing countries in Asia.

There is a significant gap in the provision of education in rural and urban areas. Equity in education means that all children get equal access to learning resources as well as opportunities. In countries like Indonesia, this is still a challenge. This is well demonstrated by the gap in terms of school development in rural and urban areas. The private sector worsens the issue of equity in education. Children learning in private schools get access to numerous learning resources compared to their counterparts from public schools. Challenges with equity in education are quite evident. In Vietnam, there is a huge gap in primary school enrollment in terms of gender. Males tend to record large numbers of student enrollment while females record a lower case. Focusing on girls, it was also discovered that girls from minority groups record low numbers of student enrollment compared to their counterparts. There is also a special group of children that should be considered. These are children with special needs. When handling disabled

children, there is more work for teachers as they need special attention. They may not exhibit learning traits present in other children. Asian governments are working towards establishing schools for children with special needs. There are many factors contributing to inequality in education. Inadequate resources are one of them. In Indonesia, the number of primary schools may not be adequate to meet the demand. Inadequate learning facilities such as books and writing material make it hard to provide EFA (Huang, 2007). Most developing countries lack the necessary funds to provide free primary education. This makes it difficult for children from poor backgrounds to get good quality education. Integration of ICT in education may worsen the gap as it may prove difficult to ensure that all students get access to education.

Research shows that most parents to don value education more so for the girl child. This contributes to low student enrollment. There is also a challenge faced by most developing countries in Asia the major challenge is financial. These countries lack the ability to budget for the establishment of new primary schools. Despite the numerous challenges, some measures have been initiated to help ensure equal access to education by all students. Countries like Brunei and Thailand are adopting laws making primary education compulsory for all students. Governments are also working to establish more primary schools in both rural and urban areas. This way they can accommodate large numbers of pupils. Training of teachers is also underway to ensure that all schools have adequate staffing. This will allow proper student-teacher ratios. Changes have been made in paying teachers in that teachers posted in remote areas will receive an increased salary.

Numerous programs have been initiated for schools in both rural and urban areas. There also programs developed for students with special needs. These programs are useful in creating after-school activities for children where they can acquire new skills. The government is working with members of the community to ensure that all children go to school.

2.9. CHALLENGES IN ASIAN PRIMARY SCHOOLS

Among the challenges faced by most Asian primary schools is low student enrollment. Enrolment rates are lower compared to what is expected. This has been caused by extreme levels of poverty experienced in some of those countries. Also, education is not highly valued by parents. Another challenge is with the demand for education. Most Asian countries have a challenge with meeting enrollment demand due to inadequate resources such as classrooms. They can enroll limited numbers of students. Some countries

lack the ability to scale up and expand their resources to meet the needs. Funding education is a major challenge for most countries. Resources are scarce. This makes it difficult for most governments to budget for education (Horie, 2014). This is why countries like Nepal have joined organizations like GEP which gives it grants to improve primary education. There is also a challenge with the adoption of technology in education. As it is resources are limited and integration of technology requires funds. This has resulted in schools lagging behind. There is inequality in education with children from poor backgrounds and girls getting limited access to education. Most countries in Asia are still working on improving the quality of education

Chapter 3

Secondary School Education in Asia

CONTENTS

3.1. INTRODUCTION

The millennium development goals (MDGs) and the education for all (EFA) agenda have guided an academic reform agenda in developing nations that has mostly centered on expanding access to primary and secondary education since the mid-1990s. Advocates of post-basic schooling have gained traction in recent years, and increased access to high-quality secondary education is steadily seen as a vital component in attaining the objectives of human development, political prosperity, and economic productivity. Secondary school, as a transitional stage between elementary and secondary education, acts as a training ground for young people before they join the workforce; assisting in the development of talents, aptitudes, and social standards in a predominantly teenage community.

Currently, worldwide secondary education access is expanding at a rapid rate, according to UNESCO. According to data estimates, the number of secondary school pupils globally will grow from 519 million in 2008 to 583 million in 2015 as a result of this rapid secondary education growth, especially in Sub-Saharan Africa and South Asia (Grossman et al., 2008). Despite these gains, higher education coverage will remain far below universal, specifically in many regions in Sub-Saharan Africa, South Asia, North Africa, and the Middle East. Roughly 40% of the school-aged population is currently denied access to any kind of post-primary education (Figure 3.1).

Figure 3.1. *When Asia does something differently than the United Kingdom or the United States, it believes that with enough hard work all students can do the same. Students in most Asian countries believe that their performance is achieved not only through any inherent intelligence but through hard work.*

Source: https://www.maravipost.com/education-asia-like-students/.

Furthermore, a disproportionate percentage of those absent at a country level come from vulnerable communities (e.g., girls or racial, social, and regional groups). Of those who do participate in high schools, transition rates are minimal, and many drop out or repeat years, indicating problems with secondary education quality and significance.

In addition to the numerous sponsors, foreign institutions, and emerging countries that are constantly looking to strengthen and extend secondary education and training, USAID's Education Strategy 2011–2015 expresses secondary education funding in two ways (USAID, 2011). Goal 2 initiatives that focus on enhancing technical or career preparation programs, such as those at the secondary level, are sponsored by USAID. Restoration of higher schooling is one of the USAID-funded initiatives to improve equitable access to education in dispute or disaster situations (Hashim et al., 2011).

This overview gives a summary of secondary education in Asian countries, the challenges that are driving progress, and some examples of recent reform attempts, as well as the rationale for them and the lessons learned. While each chapter's material addresses a variety of topics that are currently affecting secondary education in various contexts, special attention is paid to secondary education intervention areas that are important to the latest USAID Education Strategy (2011–2015), such as workforce growth and restoring connectivity in conflict-affected areas.

When it comes to education, Asia is a global success story. While statistics differ by area, 9 out of 10 children in the area today are enrolled in primary school. Experts agree the development has been nothing short of extraordinary for a continent that had two-thirds of the world's out-of-school children in the 1970s. When countries must go above the fundamentals to strive to meet students' demands for skills that translate into decent work, the shine wears off the apple. While much progress has been made in the last 10 years, metrics continue to point to severe education and human-resource shortages at all levels in the country, a fact that could deflate Asia's soaring economic ambitions.

School buildings must adjust to a job market that in many countries seeks increasingly digital and information technology-based know-how, experts add, in today's globalized work world, where competition comes from both overseas and the next workstation. Higher-skilled populations would be critical for Asian countries looking to stimulate or accelerate development. Education and training would indeed be critical to the Asian economy's long-term growth and resilience, according to education specialists with the

Asian Development Bank (ADB). It has proved to be the general consensus that a great significance can hinge on how curriculum and training programs are managed, as well as how quickly they can adapt to changes.

Job opportunities attract a large number of people to suburbs, where training opportunities are often inadequate to train them for the workforce of the future. The flow of unskilled workers from rural to urban areas in the People's Republic of China (PRC) is estimated to be at least 10 million a year. South Asia is seeing a massive influx of people under the age of 25 looking for an education or facing unemployment.

Human and intellectual capital is a critical component of economic growth, but in many countries, access to high-quality schooling, from primary to secondary and tertiary levels, is lagging behind. As a result, a lack of education actually transforms into a shortage of qualified labor. A scarcity of qualified labor dampens corporate development ambitions, ultimately jeopardizing a country's potential growth.

3.2. MEETING DEMAND

In the 20-year drive to enroll all children in primary school, quantity has always overshadowed consistency. In certain situations, even after children reach one stage of education, their minimum proficiency is insufficient to tackle the next level. As a result, an increasing number of basic school leavers are graduating with little to no marketable skills, or skills that can be translated into employment.

Though Asia is characteristic of highly competitive economies with high demands for qualified workers, the region still struggles from a disparity between education yields and labor market requirements that is expanding more dramatically than in other regions. More resources and creativity are required to increase the standard of education at all levels to meet the expectations of the working population because the labor sectors are continuously evolving. There is often an expertise gap between employment market demands and the types of applicants that are graduating from schools. This establishes a growth-restraining economic and social obstacle (Ho, 2014).

Creating secondary and tertiary education facilities is often quoted as a way to boost a countries competitive strength, and demand for higher education is projected to double in 5 years and triple in many countries in less than a decade. Other forms of schooling, such as basic adult education,

including literacy and numeracy; on-the-job training, which provides for continued learning in the workplace, particularly in high-tech fields where skills can rapidly become redundant, and vocational training, which includes retraining employees in shrinking industries and updating the skills of those tackling new companies., continue to require more attention.

Experts on the subject continue to highlight those countries must consider the spectrum of education and how to enact holistic changes that address the problems that each country faces, whether they be economic or social concerns; and this is reasonable. The problems that Nepal faces are not the same as those that face Viet Nam.

3.3. THE ABCS OF MDGS

Primary school is the cornerstone of every educational framework, and the consistency of the foundation determines achievement at greater tiers. In 1990, at the World Conference on EFA in Jomtien, Thailand, an international push for compulsory primary school enrollment was launched. Representatives from 155 nations and 150 associations came together to form an agreement that would; "Universalize primary education and massively reduce illiteracy by the end of the decade" (Figure 3.2).

Figure 3.2. *Training and education that will, in the long run, lift many of them out of poverty are a constant fight. The poor routes, great distances from the crowded areas, language, and cultural barriers put many of these students at school outside reach. Children from ethnic minorities, especially girls, often have to quit or never have the opportunity to attend school.*

Source: https://abcnews.go.com/amp/Health/wireStory/asia-today-korea-re-opening-schools-spike-cases-71037069.

EFA has developed into a worldwide initiative headed by the United Nations Educational, Scientific, and Cultural Organization (UNESCO). Education has been declared a basic human right. In 2000, the international community gathered in Dakar, Senegal, to discuss development a decade later. Research results were uneven, but it was transparent to the 1,100 participants that many countries were far from meeting the heady targets set in 1990 (Hayhoe and Li, 2008). A revised collection of six concrete targets—including free and compulsory primary education, growing adult literacy, and gender equality—were set with the intention of reaching the learning objectives of all children, adolescents, and adults, especially females, by 2015.

In the same year, at a meeting in New York, all 189 United Nations member states agreed on the MDGs, a set of 8 international sustainable development goals to be met by 2015. The 2nd and 3rd goals aim to promote universal basic education and eradicate gender disparities in both primary and secondary education. In 2002, the Fast-Track project was established to encourage struggling countries to achieve primary school MDGs by supplying funding, trainers, and teachers, and resources in collaboration with donor countries and organizations such as ADB, UNESCO, and the World Bank.

As a result, between 2000 and 2004, aid to developing countries in Asia for primary and secondary education almost doubled, from $2.6 billion to $4.4 billion. In the 1970s, the continent had two-thirds of the world's out-of-school young kids; today, it has less than one-third. By 2006, East and Southeast Asia had achieved the greatest progress toward compulsory primary education in the world, obviously having an effect on the status of secondary schools in the region.

This was largely attributed to the fact that by 1990, Chinese primary school attendance had risen incredibly from 20% to 97%. Bhutan went from having a small population of schoolchildren to almost half of all children getting 5 years of schooling in just over a 20-year stretch. The Maldives also rose to have a 90% attendance rate (Hawkins, 2012).

South Asia also exceeded expectations going on to achieve 90% attendance, up from 72% in 1991, but also saw the largest strides in gender diversity, with 95 girls enrolling for every 100 people, up from 77 in 1991. Despite these gains, 18 million children in South Asia remain out of school, accounting for more than a quarter of the global figure. In fact, despite the impressive numbers, enrollment numbers in some nations and the figures

in rural areas are much lower and not improving nearly as significantly: net enrollments in Afghanistan and Pakistan are below 60%, while Bhutan and Nepal's are less than 70%. Even with 90% average enrollment across Asia, 25 million children still do not have access to basic education. Racial groups, minority populations, immigrants, poor families, the disabled, street children, and girls are among those who are often left out.

Many nations see universal basic education as just putting children in front of desks without considering how to keep them placed. As a result, there are a lot of dropouts. Just 7 out of 10 children in developing Asian countries complete primary school, and only 4 complete high school. Dropouts are mostly caused by poverty: Children in remote regions are often forced to labor in order to help their families survive. Adjusting school holiday dates to correspond with the harvesting period and scheduling adjustable school hours for working children have also been observed as attempts to keep children in school (Hallinger and Lu, 2011). Many households are given conditional cash grants, which are payments made directly to parents—usually the mother—on the condition that their children attend school daily.

Food is also a motivator for children to remain in school, and it allows parents to better feed their school-aged children. Nutrition and calories are provided by food-for-education services to help learners remain alert and make or create conditions for success in learning. Some services provide take-home rations to help alleviate a child's absence from family responsibilities. In 2005, food-for-education projects launched in 74 nations, reached out to 22 million children worldwide in collaboration with the World Food Program and other agencies, reaching many Asian countries, including the Lao People's Democratic Republic (Laos) and Nepal. Another major problem confronting the area is the erosion of teacher pay in recent years, as well as the poor prestige of teachers, making the job less appealing.

Less than 80% of teachers in Bangladesh, the Kyrgyz Republic, Lao PDR, and the Maldives have actually received any sense of formal training. Under this difficult context, many countries in the region are working hard to achieve gender balance, with clear drives to enroll girls in primary and secondary school (females account for 64% of the world's adult illiterates). In elementary and primary school, girls have a higher retention rate than boys. This sometimes translates into secondary school too; however, they are more absent from class.

In some areas of the region, up to half of the children who finish primary school becomes functionally illiterate, this is essentially obstructing any

opportunities for further education and jobs. Flexible curricula and alternate paths should be accessible so that high school dropouts can develop skills that will allow them to contribute to the economy (Vickers et al., 2013).

Although some nations, along with Bangladesh, the Lao People's Democratic Republic, and Nepal, are still struggling with basic education (not just secondary but primary education as well), the Republic of Korea is on the other end of the continuum. The country has made significant investments in education, resulting in significant improvements in economic performance and social integration, and has risen to the top of international educational success indexes. The same can be said for Hong Kong, China; Singapore; and, increasingly, Malaysia.

3.4. SHADOW SYSTEM

Every year, the Organization of Economic Co-operation and Development (OECD) assesses the consistency, equity, and performance of educational systems in 70 countries that account for 90% of global GDP. They run the Program for International Student Evaluation (PISA), a test for 15-year-old students around the world that provides a globally standardized testing platform for countries looking to improve their educational and schooling systems.

The Republic of Korea, Singapore, and Hong Kong, China have for a very long time stood at the top of PISA scores, which measure student performances in math, science, and reading skills.

With 5,100 students from the Shanghai district, the PRC, which has a 96% primary school retention record, took part in PISA for the first time in 2010. To everyone's surprise, the PRC came out on top in all three divisions by a wide factor, beating out the Republic of Korea and Finland, who have historically been the top performers.

Experts point out that the PRC's outstanding results are undoubtedly attributed to the fact that only students from progressive, prosperous Shanghai families were studied. The outcome would most likely be somewhat different if a randomized survey of all PRC students was taken. Nonetheless, the results show that the PRC is attempting to become a regional educational pioneer. Many claim that these rankings do not actually represent a strong basic education program, but rather a large "ghost" or "shadow" system of intense evening and weekend special education, mentoring, and tutoring, which is a major business in many parts of Asia, including Shanghai (Brock

and Symaco et al., 2011). Many education experts argue that ideally, each country should have its own national assessment system for monitoring student learning so that it can be determined whether they are not achieving competency standards, as well as a system that tracks student success over the schooling cycle. It is important to note that, rather than just exams, a method of continuous and thorough assessment is required, such that children are evaluated for understanding rather than just rote learning. A method of student assessment also provides guidance to administrators, allowing them to make curriculum adjustments. These are topics that policymakers are grappling with. It is their challenge to make sure those programs at the national level can handle all of this.

3.5. WIELDING ECONOMIC POWER

Asian countries will have to use their economic power to fund high-quality education in order to take the next step in education and concentrate on quality and inclusiveness. The area has invested heavily in the construction of schools and the steady expansion of primary and secondary school enrollment.

Figure 3.3. Building schools and classrooms in remote areas gave girls and minorities the chance to enroll in high schools without traveling far and concerned about their safety. Boarding facilities have been developed in areas where schools are far from home. Distinct toilets have also been built for girls and boys. Parents were encouraged by this safe school environment to send children to school.

Source: https://asiafoundation.org/2019/10/24/shiseido-empowers-marginalized-young-women-in-asia-pacific/.

Expanding inclusion, providing greater access to public education of high quality, especially for the poor and vulnerable, and keeping more students not just in secondary school, but in higher education would all be much costlier, complicated, and difficult. To ensure that education is relevant to the demands of the labor market—and that high achievers can get good jobs—system-wide changes are needed (Figure 3.3).

According to the ADB, it has been shown that merely throwing money at education problems does is not effective. Despite dramatic rises in school funding in many OECD nations, test results have been stagnant for decades. Improving teacher instruction, education, and childcare services are some of the reforms that have been fruitful and cost-effective in the past. According to a new report conducted in the Philippines, earlier schooling has the highest effect on school completion. Incentives for pupils, teachers, and schools to do well are also important components in improving educational results, more so the greater the tier (Bray et al., 2014).

Growth can be hard to ascertain because accurate measurement of results necessitates the use of consistent and reliable appraisal instruments, such as national tests, which were not previously available in many Asian countries, but these statistics are changing. As a result, EFA and other global reporting organizations would make do with physical metrics like the number of eligible teachers, absenteeism, and graduation rates, total class size, and primary education spending as a proportion of the national GDP. The education systems and models must change as information and communication technology (ICT) becomes more available, just as instructional models must be scalable to satisfy potential workplace demands. Technology affects not just how students learn, but also how teachers are educating and how well they teach, especially in rural areas.

Educators globally have already clearly moved to terms with the fact that machines can improve the learning experience. According to an ADB report, the use of information and communication technologies in classrooms yielded positive outcomes. Students became more inspired and collaborated more effectively in groups; absenteeism was reduced; academic scores increased, and computer literacy and leadership skills strengthened.

Governments have long funded primary and sometimes even secondary education. In developed nations, primary education is by far the most cost-effective level of education, paying 14 times less per pupil than secondary education and 34 times less than tertiary education on average. Since higher education is much more expensive, the more developing countries extend their academic institution systems, the more financial difficulties they

face. Higher education in most Asian countries is public, which improves enrollment while capping efficiency due to budgetary constraints; however, private higher education programs exist, but the rules and regulations that run private higher education systems are not properly developed and are designed to favor the wealthy.

Governments, however, cannot merely extend higher education programs with only the use of federal funds; they must find new funding solutions, such as public-private partnerships, to ensure that a country's best potential does not remain trapped beyond university and tertiary institutions. The Republic of Korea is a great example of what can be accomplished when higher education is privately funded and managed with strategic goals in mind. "Pro-poor" institutions—private higher education schools—offer spots to promising students who may otherwise be unable to finance such a schooling opportunity.

The idea here is that instead of feeding an elitist system, the aim is to provide an all-inclusive education environment and integrated human development at any stage of education. Here lies the difficulty though as, not only in tertiary education but even more notably in secondary and primary education, the private education market is constantly playing a part in money and management on national levels in education (Valk et al., 2010).

Governments are beginning to recognize the benefits of public-private partnerships, in which private market support and increased efficiency supplemented by the public sector academic objectives. Education scholars proclaim that education is no longer all for primary school, and it does not lift children out of poverty, provide them with a stable income, or prepare them for a more educated position in society. This is what drives them for an improvement in educational standards across the board, and Asia has taken notice.

3.6. CRAMMING IN KOREA

Met with the destruction of the Korean War and the depletion of natural resources, the Republic of Korea invested in education long ago as part of a strategy to maximize its most valuable resource: its population. It had a long journey ahead of it. At the close of World War II, the adult literacy rate was projected to be about 22%.

Koreans should be proud of a lot these days. Their literacy rate has risen to at least 98%, and their 15-year-olds' scores in reading, arithmetic, and science are at or close to the top of worldwide surveys. Higher education is

a primary concern for many Korean families, and the nation has one of the largest percentages of university graduates of any nation on the planet.

Residents of the republic, though, including instructors, parents, and students, have a different perspective on schooling than many foreigners. High test results have come at a premium, owing in large part to a vast private supplemental school scheme that charges the nation's families millions and millions of dollars per year.

This scheme has been so costly that many Koreans fault it in part for the country's dwindling birth rate, which now ranks among some of the lowest in the world, raising potential problems.

A large number of Korean families have voted with their feet—or, more accurately, with plane tickets—by sending their kids to study abroad during their high school or even primary school years.

Parents' wish for their children to become proficient in the English language, a highly coveted skill in a world fully cognizant of the need to succeed in a globalized market, is behind much of this migration. Some parents, on the other hand, want to liberate their children from the Korean educational system's pressure-cooker environment, which places a heavy focus on passing standardized, multiple-choice examinations. And some now want their kids to learn Mandarin or Chinese (Spolsky et al., 2012).

The Republic of Korea's government is well informed of the flaws of its education sector and has worked to introduce reforms. It has aimed to enhance English language learning at home, improve Korean colleges, and foster "future Nobel prize champions" to fight a mass exodus and alleviate some of the economic strain on middle- and low-income households.

Faced with a massive migration, Korea is frantically trying to "transform the education system" to have what families are looking for, like fulfilling an overwhelming demand for English competence that is strongly regarded in the private sector. However, the government's reform initiatives have so far failed to reel in a large number of specialized after-school institutes known as hagwons, which place significant costs on Korean citizens and account for nearly 3% of the country's GDP.

3.7. HIGH TEST SCORES

In its most recent global survey, the Organization for Economic Cooperation and Development's Program for International Student Assessment (PISA) placed the Republic of Korea first in text comprehension, second in math

(behind Singapore), and 4th in science among participating nations (behind Finland, Singapore, and Japan).

As the Shanghai and Hong Kong, China schools are included —Shanghai participated in the study for the first time in 2010— the Republic of Korea falls slightly. In all three grades, Shanghai came out on top, and in math and science, Hong Kong, China, outperformed the Koreans.

The study is focused on two-hour exams given to 15-year-olds in over 70 countries. In recent years, the findings have been a symbol of pride for Koreans, and they may have led to US President Barack Obama using Korea as an illustration in many addresses about education and learning. For example, in his first speech on the topic since taking office, Obama called for extended school days and school years, as well as an extension of after-school programs (Figure 3.4).

Figure 3.4. In South Asia, classrooms are rote-based and teacher-centered, and children are punished and discriminated against. In order to pursue education in the region, girls face incredible obstacles. Enhancing the quality of education can lower drop-out rates and ensure improved transitions from early childhood to primary and high school.

Source: https://en.wikipedia.org/wiki/Education_in_Asia.

He claims that every year, American children spend about a month less in school than children in the Republic of Korea. He reiterated that this is not the way to train them for a 21st-century economy. The demands of the 21st

century necessitate more time in class. "If India and the Republic of Korea are developing more scientists than we are, we will not succeed," Obama warned in February 2010. In January 2011, he said that Korean teachers are recognized as "nation builders" in his State of the Union speech.

His remarks, especially his call to emulate longer Korean school days, came as a surprise to many people in the Republic of Korea, where the education system "has been under constant public criticism due to its lack of creativity and heavy dependence on private tutoring,"

Many people in Korea were surprised by his remarks, especially his appeal to imitate longer Korean school days since the education system "has been under relentless public scrutiny due to its lack of imagination and strong reliance on private tutoring," as the Korea Times newspaper reported.

The country's international teachers agreed. Obama claims to have "an absurdly romanticized idea" of Korea's educational system, according to one commentator. Another blogger wrote that Obama should approach the Korean model "with way more cynicism" than he has and many argue that even though he is somehow right in some respects, he fails to see the whole picture (Burchinal et al., 2010).

High test scores and high-level praise may breed complacency and undermine school systems improvement attempts. Skepticism among the general population continues to be widespread. The World Economic Forum analyzed 139 economies worldwide for its Global Competitiveness Report for 2010–2011 and found that, despite ranking 22nd overall on a list of a variety of metrics, the Republic of Korea is still competitive and has continued to be for the best parts of the decade but locally there appears to be less confidence in the education sector. In terms of quality of primary education, for example, the Republic of Korea ranks 31st—behind six other Asian nations (Singapore; Taipei; China; Japan; Brunei Darussalam; Hong Kong; China; and Malaysia) and three places ahead of the US. The Republic of Korea ranks 57th, barely ahead of Rwanda, in terms of higher education standards as judged by the local business sector. Even though the Republic of Korea has "the highest rate of tertiary education enrollment in the world," according to that specific study, 8 Asian economies rank higher, led by Singapore.

3.8. THE HAGWON SYSTEM

The hagwon scheme; a complex network of more than 70,000 private, for-profit institutes that educate students regardless of age; reflects much of

the frustration with public education in Korea. The Hagwons specialize in assisting students in raising their cumulative grade point average in standard high schools and passing national entrance tests in order to gain admission to the top universities. They are often referred to as "cram schools," and they are a secondary or "ghost" education system equivalent to Japan's juku (tutoring) schools, according to scholars. Students studying Hagwon usually study ahead of the high school schedule, studying the same content ahead of time.

However, a hagwon will cost up to $1,000 per child per month, and some students probably wind up studying for their university entrance exams for up to 15 hours per day, arriving home long after midnight. Educators claim that hagwons are primarily to blame for Korean students' high-test results, but they also claim that the schools have brought many families to the verge of financial ruin and exacerbated the level of inequality the public school system seeks to remove.

Parents in the Republic of Korea spend about 7% of their overall income on their children's private school. As a result, it can be deduced that student achievement cannot be traced to the public school system. The Korean private tutoring scheme is by far the biggest in the world as compared to the size of the traditional education system (Synott, 2017).

The high cost of private schooling is a big contributor to the $231,000 it costs to raise kids in the Republic of Korea from birth to college graduation. According to Koreans, this has led to the country's dwindling birth rate, which is among the lowest globally. One can clearly see the correlation and having to spend an enormous amount on education is one of the fundamental reasons the republic of Korea is struggling to solve the issue of low birth rate and that this leads to a higher proportion of elderly people living in poverty.

3.9. EDUCATIONAL EXODUS

Early study abroad, also known as pre-college study abroad (PSA), is a parallel concept of Korean schooling. It is the tradition of sending high school or even elementary school students overseas, mostly to learn English. According to a report published in the Journal of Korean Studies, the number of Korean PSA learners grew 17-fold between 1998 and 2008, to over 27,000 per year, despite a decrease in the total number of elementary and secondary school students. With so many young people leaving with their talents, resources, and probably their lives, it is not an understatement to suggest that this PSA development signaled a remarkable educational,

fiscal, and national crisis for the Republic of Korea. Because of the global financial downturn, the numbers are thought to have decreased since 2009, and new destinations have emerged (Figure 3.5).

Figure 3.5. Among OECD countries, students who study abroad study foreign language environments in Japanese and Korean systematically. 63.1% of Korean and 92.2% of Japanese students studied English in 1998. In other English-speaking systems, most of them are from New Zealand (96.4%) and Australia (78.3% in 1998).

Source: https://www.akdn.org/where-we-work/central-asia/tajikistan/education-tajikistan.

According to the report, the PSA's center of focus has moved sharply away from North America and toward Southeast Asia. Rather than moving to Australia, New Zealand, or the United States, more than half of Korean students doing PSA now travel to Asian countries where English is commonly spoken, such as Malaysia, the Philippines, and Singapore, as well as India.

Some people are thinking, "Forget English, the language of rivalry is Chinese," which has resulted in a rise of Korean students studying in the PRC at the pre-college and university ranks. Other families want their children to get the best possible outcome, so they send them to Singapore, where they can learn both English and Chinese, which are both official national languages. As a result of this tradition, Koreans refer to their families as "geese families," in which the father stays at home in Korea to work while the mother travels with the kids and resides with them worldwide. This

results in social expenses as well as the financial strain of trying to manage two homes.

3.10. REFORMS

Met with the high cost of hagwons and the educational migration, President Lee Myung-bak during his tenure, tried to introduce a number of measures aimed at expanding jobs in the Republic of Korea and lowering the cost of shadow schooling.

"English villages" were developed to include learners in short-term, live-in immersion experiences in which to learn the language. In the Incheon Free Economic Zone, international universities such as the University of North Carolina and the State University of New York at Stony Brook are establishing training centers. There are proposals to open subsidiaries of a dozen US and British private high schools in the state-funded Jeju Global education city on Jeju Island. President Lee also encourages Korean high school teachers to "teach English in English" in middle school in order to "create a learning atmosphere that is less reliant on private school education."

This is also directed at enhancing Korean students' English language proficiency, which, considering the great deal of time dedicated to English classes in public schools, educators claim is very limited.

However, some Korean instructors, especially the older ones, have resisted such reforms, prompting the government to tone down the program. However, another program, dubbed "Brain Korea 21," is moving forward with the target of "making South Korean universities more successful and thereby world-class universities. While it may be impractical to expect immediate reform of the hagwon system, considering its importance to the Korean economy, efforts to lift the profile of Korean universities look to be having some successes (Silova et al., 2007). Pohang officially became just the second Korean university to launch a transformation to an all-English program, with a $2 billion operating budget, a comparatively modest enrollment of 2,700 of the state's brightest students, and a program of recruiting professors from all over the world. Baik now aspires to be among the top 20 universities in the world.

3.11. WINDFALL SCHOOL

Tserenlkham, the polite and talkative director of Sainshand School no. 2 in Mongolia's eastern Gobi Desert, has been very articulate and enthusiastic

about the new materials they have received. What is happening at this windswept school in Mongolia's Gobi Desert is a significant departure from how students have been learning for decades when the nation was linked to the former Soviet Union, rote memorization in dingy institutions was often the standard. Experts believe the current challenge today is expanding the kind of momentum that schools like Sainshand School no. 2 have had.

3.12. A STORIED PAST

The achievements of Mongolia's original founders are required reading not only for Mongolians but for students all over the world. It is also a world that has seen drastic shifts in its culture since the early 1990s and will be put to the task in the coming decade.

Mongolia has seen rapid economic growth, but, like many other countries around the world, it has been badly affected by the recent global financial crisis.

A recovery is underway, thanks to foreign donors. According to the Asian Growth Outlook (2010), a report of the ADB, gross domestic product increased by 5.0% in the first half of 2010, after a 1.6% contraction in 2009. In 2011, the country's economy is expected to grow by 6.5%.

Mining, in particular, the vast Oyu Tolgoi plant, which is projected to be one of the world's most productive copper and gold mines when it started production in 2013, is driving economic growth. Its position between the economic giants of the PRC and the Russian Federation also benefits the region.

The nation has used some of the proceeds from its economic growth to fund an ambitious school-building program. Mongolia, like many other countries in the region, has had great success increasing primary and secondary school enrollment. More than 90% of primary school-aged youth are enrolled in classes. Despite the fact that attendance rates in primary and secondary schools are high throughout the country, many youngsters in the rural regions still do not attend. In the countryside, 8% of kids aged 7 to 15 years old have never attended school. According to a survey by the United Nations Country Team in Mongolia, another 19% of youth drop out before finishing 8th grade.

Aside from the complexities of the urban-rural divide, many Mongolian schools lack the new infrastructure and contemporary teaching perspective that the school in Sainshand does.

"School curricula and instructional practices have not kept pace with changing job market requirements," says the ADB study when they researched the impact of the financial crisis on Mongolia's education system.

The program remains rote-based, overly descriptive, and concentrated on conventional learning topics, with teacher-centered instead of interactive instruction. Classroom teaching promotes memorization over-analytical and imaginative thought, as well as independent learning over collaborative learning.

Mongolia's biggest challenge—and a crucial problem for the country's educational development—is, interestingly, the promise of immense resources. Mongolia has reported reserves of almost every major valued mineral resource: coal, copper, fluorite, gold, iron ore, lead, tar, phosphates, nickel, uranium, and others, and it sits on some of the world's largest mineral resources. The Oyu Tolgoi mine project alone is estimated to produce up to $50 billion in revenue over the next 50 years (Figure 3.6).

Figure 3.6. The education system of Singapore is the product of a distinctive, even unique, series of influences in history, institution, and culture. These factors contribute a great deal to explaining why the educational system in the current evaluation environment is especially effective, but how applicable it is to other countries also.

Source: https://theconversation.com/amp/why-is-singapores-school-system-so-successful-and-is-it-a-model-for-the-west-22917.

Mongolia's large mineral reserves would attract new investment, build employment, boost export revenue, and generate a rise in government

revenue that can be used to finance social and infrastructure spending, such as improving the country's educational system. On the downside, this infusion of cash and investment is likely to drive up labor demand well beyond Mongolia's potential, resulting in higher wages and government expenditure that could push the nation's inflation into double digits. It can also keep the economy dependent on resource extraction industries, making it vulnerable to "boom and bust" cycles linked to global economic fluctuations (Butler, 2015).

3.13. SKILLS SHORTAGES AND MISMATCHES

In its development process, the government found a big roadblock for Mongolia's education system: creating graduates who can fill skills shortages and mismatches that affect nearly every aspect of the nation's economy.

The government's proposal to allow private schools, which were formerly banned under the communist dictatorship, contributed to the country's success in greatly expanding the number of universities, such as colleges and technical schools. At the start of the political transformation, there were just 14 state-owned higher education institutions. There were 146 higher education institutions in 2010, plus 5 overseas university branches. Over the same time frame, the number of students rose from 20,000 to about 164,700. According to a higher education sector report, the dramatic growth in the number of public and private higher education institutions since 1991 was fueled by competition and was mostly unregulated.

Just about half of private higher education institutions have been approved, according to the survey, and their administration and finances have not kept up with the expansion. The government has replied by announcing a decision to reduce the number of public higher education institutions from 42 to 16, with the aim of focusing attention on smaller, but stronger entities.

According to the survey, "while enrollment rates in graduate programs have been gradually growing, there is little indication that curriculum quality has improved." "Increasing demand for higher education seems to be motivated by quality concerns, although it does not seem to act as a motivation for academic institutions to enhance the effectiveness of their programs."

A proliferation of small private schools with little quality control, a weak accredited certification scheme, too few professors, low research capacity and insufficient research facilities, and weak networks and collaborations

with regional and foreign universities, among other issues, plague Mongolian higher education organizations.

Poor and rural communities are often denied admission to college or technical school, a condition made worse by insufficient state support and loan services. Mongolia faces problems in the education sector, but its government is dedicated to strengthening it by enacting numerous reforms and offering incentives such as free textbooks for underprivileged students, targeted at disadvantaged children, free school snacks, and free kindergarten meals. Reforming the curriculum and improving teaching methods are ongoing and continuous endeavors.

The development campaign is outlined in a comprehensive national policy, as well as the school development plan, which creates enclaves that will act as "intellectual townships," according to the Mongolian government. The proposal, which was adopted by the government in June 2010, specifies six sites that will be transformed into global higher education institutions. If the initiative is implemented from 2010 to 2021 with both public and private financing, further centers will be built. While these more comprehensive national policies are being developed, several educational institutions across the state are already reacting to the desire for specialized skills (Ryan et al., 2010).

A bunch of students laid bricks at a technical school in the Gobi Desert town of Sainshand, the instructor of the masonry class at the vocational training and development center, points out that construction workers are in limited supply in Mongolia. A walk down any main street in any Mongolian city will quickly validate the demand. Construction projects appear to dot nearly every block.

3.14. SECONDARY CURRICULAR REFORM IMPLEMENTATION IN EAST TIMOR

East Timor arose from times of conflict and vulnerability where most of the infrastructural facilities were lost, as various reports and official records of the Government have recorded. When population trends indicate an uptick, schools damaged remain a big issue.

Reorganization of education systems was deemed critical, and the Strategic Development Plan 2011–2030, which is in line with the MDGs, emphasizes the importance of better education in the development of a fair and progressive society. Particularly bothered about the actual educational

status of 15 to 19-year-olds, the EFA statistics clearly reports that one out of every three Timorese is already in lower secondary school, despite being technically in upper secondary school.

Much emphasis has been placed on improving and expanding the secondary schooling system, as well as addressing the high number of children in primary school. The SDP 2011–2030 emphasizes that older secondary curricula are insufficient to meet the needs of East Timor. The modern secondary syllabuses are being developed as part of a collaboration agreement between the East Timor government and many Portuguese institutions. A team of scholars and curriculum designers from the University of Aveiro is in charge of designing and developing curricular resources for 14 disciplines, including programs, student textbooks, and instructor guides.

As East Timor's minister of presidency pointed out, "it is not fair enough that many have to travel hours per day, to an overcrowded school, without appropriate books and textbooks" In 2012, the revised program for 10th grade began to be introduced. It must be emphasized, though, that any curricular breakthrough carries with it risks and issues. These are popular in countries that have recently emerged from a war, and they may lead to:

- Power of traditional authorities;
- Inability to fund either capital or recurrent expenditure;
- Chronic shortages of qualified instructors;
- Corruption;
- Lack of transparency in the national education administration.

Many scholars agree that in order to successfully institutionalize and manage curriculum change, it is essential to:

- Invest in decentralization of working capital;
- Teacher training;
- Improved logistical delivery of curricular materials;
- Restructuring of school access facilities.

Experts also emphasize the importance of promoting good leadership in schools the required support structures for implementing new curricula should be provided by school leadership. These processes include careful preparation, the participation of instructors, students, and other interested parties in decision-making, and, most importantly, the development of consensus around how to facilitate and maintain curriculum creativity (Figure 3.7).

Figure 3.7. Although there have still been significant developments in many Asian nations in comparison to their counterparts in North America and Western Europe. For example, the three most densely populated Asian countries: Indonesia, India, and China, recognize the change in GER for 10 years before the latest data reported.

Source: https://www.studyinternational.com/news/international-schools-in-asia-that-prepare-students-for-the-future-world-of-work/.

However, some other topics that are typical in post-conflict countries can have an effect on curricula reform. In the following part, these will be identified and analyzed. Attributes of certain Asia-Pacific countries, as well as Factors Influencing Secondary Educational Changes Three low-income countries' general characteristics: East Timor, Lao People's Democratic Republic (Laos), and Cambodia are highlighted, followed by an analysis of the factors that are contributing to the success or failure of their secondary curricular implementation (Rose, 2009).

3.15. GENERAL CHARACTERISTICS OF EACH COUNTRY

In order of liberation, Laos gained independence in 1975 by civil war, Cambodia was liberated from Vietnamese occupation in 1989, and East Timor was liberated from Indonesian occupation in 1992. The nation with the largest surface area is Laos, followed by Cambodia and East Timor. Cambodia has the greatest population, led by Laos, and then East Timor, in terms of total inhabitants. East Timor has the fastest population growth rate, led by Laos, and then Cambodia.

In terms of the year, each nation began its most recent education change, Cambodia began in 1996, Laos in 2006, and East Timor in 2010. In terms of school enrollment, Laos had the largest growth in secondary school enrollment in 2010, led by East Timor and Cambodia. Cambodia, on the other hand, saw the greatest rise in youth literacy rates between 2005 and 2010.

East Timor has had the most progress in terms of compulsory education rate. In East Timor, compulsory education covers the first nine years of schooling (basic education), while in Laos and Cambodia; only the first five years of primary education are required. East Timor's increased commitment to education expressed the expectation that continuing economic growth necessitates a more educated and skilled workforce.

It is critical to determine which secondary school educational policy considerations have an effect on secondary school enrollment in Laos. Furthermore, we can take a look at what factors influence Cambodia's youth literacy rate as well as the factors, in the sense of East Timor, that restrict (or do not limit) appropriate curricular growth and improvements in secondary school registration and youth literacy.

3.16. FACTORS THAT HAVE IMPACT ON SECONDARY EDUCATIONAL CHANGES

Laos, along with Cambodia and East Timor, are low-income countries pursuing broad objectives such as the MDGs for long-term development. Both of these countries understand the importance of increasing educational access and equality so that citizens can engage in economic, social, and political growth as a result, everyone was interested in reforming education, including the fact that each nation has its own education policy and curriculum structure. To ensure that learning policies and strategies are applied successfully at all levels, a general movement toward decentralization of education policies and strategies has been cultivated.

However, it was acknowledged that attempts to decentralize certain decision-making and financial management processes face many constraints that are shared by the three nations, such as the inevitability of "training local workers to take on new functions." In terms of secondary education reform, new syllabuses in these three countries were created using a mix of content and competency-oriented methods, with themes and concepts chosen based on educational goals These new and groundbreaking curricula were created

to address: “low enrollment levels in high education”; “low enrollment ratios in secondary education “; “a high number of out-of-school high-school-aged youth”; “poor significance, consistency, and productivity in recent secondary education programs”; “out-of-date material,” “discipline-based, college-bound curriculum”; “inadequate credentials of many instructors, education administrators, and school administrators,” among other issues.

Technical projects overseeing the restructured secondary curriculum in East Timor accepted some of these goals as well. There are also areas of opposition, such as teachers’ inability to change their conventional teaching techniques. Furthermore, the demand to incorporate new subjects into the curriculum on a regular basis exacerbates the issue of an overburdened curriculum.

Most of the countries in question have taken measures to decongest the curriculum in reaction to the above issue. One of the current trends is to use a cross-curricular approach, which means that new learning fields are not seen as distinct subjects but rather tend to be incorporated into the curriculum, as in Cambodia. Furthermore, a cross-curricular strategy that allows for interdisciplinary activities is needed. East Timor’s latest secondary curricula have this benefit in theory (Robertson, 2008).

In terms of secondary school enrollment, the three countries under consideration indicate that low secondary school enrollment is highest in urban and financially developing regions, and lowest in rural ethnic group areas and deprived districts.

Gender inequality is more visible in rural, isolated, and ethnic group regions as well. These factors could explain the disparities in secondary school enrollment and adult or youth literacy rates in each of these three countries. Differences in female enrollment, on the other hand, better clarify the disparities between the nations under investigation. Instructor behaviors are now being more widely acknowledged as having a significant impact on school dropout trends. Another constraint is the use of registration fees for schools. East Timor’s education is free, which can be a motivator for students to enroll in classes. Furthermore, the performance of modern curricula delivery is heavily reliant on national infrastructures. Lack of electricity and bad highways, for example, “can obstruct the timely distribution of written learning materials” and “general interactions between students and teachers.”

Chapter 4

Tertiary Education in Asia

CONTENTS

4.1. INTRODUCTION

What comes into one's mind, when they hear of the word "*Education*"? The term education might seem to be a word invented recently; but the fact is, education has always been in existence since time immemorial. The only difference is that, in almost every generation, the term education means had a unique term to identify it. Education is the passing of information from a more informed individual, to a less-informed individual. The information could either be skills, knowledge, values of life, morals, the customs of people and basically the way of life among others.

In the early ages, people used to master skills through apprenticeship. With apprenticeship, learners would observe from either their parents or more informed individuals and try to learn and understand the art of doing things. After the learning process, they would get into the phase of practicing what they had observed, and with time, they would end up being masters of whatever skills they observed. For instance, girls learned to cook, plate, knead among other activities, by observing their parents performing the same task. Most important skills, such as the skill of treating people, commonly known as herbalists, were also passed to the next generation through learning by observation. However, most individuals believed that for one to be an herbalist, they had to inherit the genes of treating from their parents; but the fact is, it was not all about genetic characteristics in them, but their art of observing even the tiniest details and learning from their parents as they helped them in the task of treating people.

As time moved by, the need to learn more things increased. People from different cultures interacted, and the realization that they needed more than the art of observation to learn things hit them. With such realization, the need to come with a new way of learning was invented; which is referred to many in our current generation as formal education. Formal education is the art of learning skills, knowledge, values, morals, among other things, through reading and writing.

With formal education, the system of schools was introduced. Schools were introduced because not all parents were knowledgeable about formal education. Informal education required only the parent, to be able to pass their skills and knowledge in life within the home set up, and furthermore, informal education did not require special training. Formal education required the tutors to be well trained on the skills and knowledge they would be passing to their learners. As the art of formal education evolved, different fields such as the likes of Mathematics, Sciences among others came into

existence. Back then, education was only for the rich individuals who could afford to pay the tutors to tutor them or pay for their children. However, as formal education continued spreading across the world, the cost of education was reduced and more people were given the chance to explore the new world of education. Back then, education was not compulsory, it was only for the interested parties; however, as more people learned about the importance of education; education has become a compulsory thing for young people within a specific age group.

There are several ways of passing information from tutors to learners. One of them is teaching, where a tutor guides a learner in learning the most important aspects of a certain topic and leaves the rest of the revision work to the learner. The second method is that of training, whereby a tutor helps a learner in understanding how things are done, giving them time to practice till they master the skills. The third way of passing information is that of storytelling. The main aim of storytelling is the passing of values, customs, and beliefs of a certain society to the learner (Choi and Lee, 2008). With storytelling, learners get the chance to learn about morals. The 4th method of education is that of discussion. Discussions allow learners to educate themselves by sharing the information they known amongst themselves. With discussion, there is usually no need for a tutor, but if needed, a tutor's responsibility is to help the learners be more organized and coordinated in their discussion. The 5th way of learning is conducting research. With research, learners are assigned a specific topic by their tutor to go and research on. Research helps learners master the skill of obtaining information from various sources, and it also expands their knowledge away from a classroom setup.

Education is usually divided into different levels. There is early childhood education, primary education, secondary education, and high education. Early childhood education is specifically for young children below the ages of four. At this level, young children are prepared for the entire system of learning by being taught simple skills such as the likes of simple writing; the reading of simple letters, among other skills. During the phase of early childhood education, children are able to interact with their peers, and with that, they master the basic skills of interacting with other people, with the help of their teachers. Early childhood education is further divided into different levels which differ from one nation to another. The most common divisions of early childhood education include; kindergarten, where a child's main responsibility is to learn some basic words and interact with their peers; after kindergarten, they move to nursery school where

they are taught how to write and read and basic conversation skills. Early childhood level accommodates children between the ages of three to seven years.

The second level is the primary school level. The primary school level accommodates children from the ages of seven years. In most nations, the primary level and the early childhood level are the most compulsory levels of education. At primary school, children learn general information about different fields in education. They are taught about the basics of languages, art subjects, and science subjects; correct behaviors in the society, customs, and beliefs among different communities, among others. Basically, the primary school level lays a strong foundation for the entire learning process in one's lifetime (Permani, 2009).

The third level is secondary school. In most nations, secondary schools comprise of young people who are in their adolescent stage. Secondary school learning is not compulsory, though it is a necessity. At the secondary school level, young people are taught common knowledge which prepares them for higher learning. Common knowledge gives them a better understanding of the different fields of education. The secondary level of education is divided into two subdivisions in most nations. There is the lower subdivision which focuses on equipping learners with knowledge on almost all subjects being taught at the secondary school level. The second subdivision is that of upper learning, where learners are given opportunities to choose subjects that relate more to their dream careers.

The 4th and last level are the high education level, which is also known as tertiary education. Tertiary education is not compulsory neither is it a necessity, but in its own ways, it is a boost to an individual who has pursued it. Tertiary education focuses on career training, preparing an individual to venture into their dream career.

With the completion of each level of education, an individual is assigned a certificate indicating their completion and the grade they attained at that level. The value of certificates increases with advancement in the different levels of education. For instance, a tertiary certificate is more valuable compared to a primary certificate.

4.2. TERTIARY EDUCATION

As stated earlier, tertiary education is the 4th level of education immediately after high school. It involves different categories of schools; from business

schools to law schools, universities, and colleges. In tertiary schools, most individuals pursue diploma courses, undergraduate degree courses, and post-graduate degree courses.

Tertiary education is neither a compulsory nor a necessary level of education; however, with the rapid changes happening in the world, tertiary education is rapidly becoming a necessity. Before, people were only interested in attaining the secondary certificate for them to be categorized under the category of learned people. The high demand for skilled individuals who have graduated from tertiary schools is pushing many individuals to work hard but also smart in order to qualify to be enrolled in tertiary schools.

Individuals who have graduated from tertiary schools are said to have their own unique and, in most cases, admirable character. This is because, at the tertiary school level, they have been exposed to different individuals from different parts of the globe where they get a chance to interact with them; learn from them; and adjust to a life of doing things together and respecting the different opinions present (Ng, 2012). Such people upon graduation have different opinions about how the world is and how it functions, and their moral behavior can be graded as top-notch. They tend to be more open about life; rarely minding about the different groups in the society; easily adapt to new environments; quick to embrace new cultures and diversities; push for the establishment of positive policies which boost the growth of the society among other attributes.

4.3. TERTIARY EDUCATION IN ASIA

The continent of Asia was among the first continents to embrace education in the world. The development of the education system among counties in Asia was fast compared to other countries. Some of the big universities across the globe are located in countries in Asia. Tertiary education in Asia has deep roots for it is the main reason for the growing economies in different countries in Asia; for with more graduates from tertiary institutions, the more the rate of economic growth because of the new skills from tertiary schools.

Despite the fact that the Asian continent was one of the first continents to have developed in terms of education, more so in the establishment of tertiary institutions, the enrollment rate into tertiary schools is still low. However, compared to other continents such as Africa, enrollment to tertiary institutions in Asia is high. It could be said that in Asia, there is the availability of tertiary institutions, however, the rate at which new students are being enrolled is low; since most of them are not interested or they are

yet to qualify. The low percentage of graduates from tertiary schools in Asia has pushed most nations to higher people from other continents just to fill in the gap created by the lack of qualified graduates. The issue of employing individuals from other nations serves as a discouragement to the natives of Asian nations; lowering their morale to work hard to end up graduating from the best institutions in Asia. The quality of tertiary education in most nations is under threat from criticisms from natives of Asian countries. Most parents push their children to go and pursue studies in other nations instead of motivating their children to go for the tertiary institutions in their nations. Such behaviors have led to the development of negative perception about the quality of education being offered in Asian tertiary institutions creating an enrollment gap (Nunan, 2005). In order to fill the enrollment gap, most governments are forced to seek ways in which they can encourage more enrollment into their institutions by either lowering the cost of their education system to be affordable to many; holding seminars across the nations in Asia to encourage learners at Secondary school levels to aim for tertiary institutions and work hard to meet the qualifications; offering of scholarships to secondary school learners among other ways.

In Asia, there is a rising concern about the skill gap. The skill gap is the difference between the skill set that the labor market requires from graduates and the skill set being taught to students while in school. This means that the graduates are not well equipped for the job that awaits them hence there is a need for tertiary schools in Asia to up their game by ensuring that the skills and knowledge they pass on to their students is up to date; from low quality means that the lessons being taught rhyme with previous labor markets and not with the current advanced labor markets. Despite the many challenges the Asian countries are facing, there is a need for improvement of the quality of tertiary education being offered. This is because, the world is changing, and there is high demand for a skilled labor force to help nations in adapting smoothly to the new changes being experienced across the globe. Governments in Asian countries have a bigger responsibility of ensuring that they find ways to boost their Tertiary education system. It is high time, individuals in Asia be educated on the importance of tertiary education before it is too late.

4.4. INVESTING IN TERTIARY EDUCATION

As it has been stated earlier, there is a need for the improvement of the quality of tertiary education being offered in Asian countries; hence, the need

for heavy investments to better tertiary education. School infrastructures require money for them to be improved; institutional staff ought to be paid an appropriate amount for the work they do; students from low backgrounds require support for them to enroll in tertiary institutions; tertiary institutions ought to be well-financed for them to adapt smoothly and quickly to the rapid changes happening in the globe by ensuring that the quality of education they offer goes hand in hand with the changes; among other needs for money.

Investing in tertiary education will not only benefit the student, but the entire society, the Nation, and the globe at large; for it is with those skills we are able to better our lives.

In tertiary institutions, some individuals are shaped to be secondary school teachers and primary school teachers. This means that a well-educated secondary school teacher will go back to society and equip the secondary school students with the right knowledge helping them meet the requirements for enrolling in tertiary schools. The same case applies to a skilled primary school teacher; he or she will be able to shape a pupil from the word go and help them in aiming for not only secondary school education but also for university education. If enough finances are invested in tertiary institution, it means that the quality of education provided to both secondary and primary school teachers will improve. This is because, the teachers will be taught on the latest technology and trends in the world; hence after graduation, they will in turn enlighten both secondary students and primary pupils on the latest technology; fully preparing them for the life in tertiary institutions and also for the outside life away from school (Nagata, 2007). A pattern in which both primary and secondary school students are taught by skilled teachers; ensures that there is a full transition from primary to secondary, and secondary to tertiary schools.

As stated earlier, tertiary institutions shape the future leaders of our nations. From tertiary institutions, doctors who help in treating our ailments are produced; engineers who help in the development of infrastructure in different sectors are produced; avionics are shaped to help in improving the transport network, more so the air transport, which has become more important across the globe; business personnel who in one way or the other help in boosting the economies of our nations are produced; administrative personnel who help in leading nations are produced; among other important professions who collaboratively help in shaping nations to be better with each passing day. It is in tertiary institutions where the best innovations have been invented. Investing in tertiary institutions ensures that students are provided

with the necessary resources which aid in their research activities. It is from this research's activities where innovative ideas are born. Innovations from research activities help in creating more job opportunities; many Asian nations are fighting the challenge of unemployment. Such innovations help in solving serious problems which seemed impossible to solve, hence making the lives of most individuals across Asian nations easier.

In summary, adequate investment in tertiary institutions will ensure that; one, tertiary institutions are well managed for they will have enough funds to hire the best Managers who will help in shaping their institutions to be better with each passing day; two, the different designing system in tertiary institutions will be top-notch for there will be enough funds to fund the designing processes; three, the institutions will be well equipped ensuring that students have the best resources at their disposal leaving no room for excuses of failing; four, with enough funds, institutional staff members will be well compensated for their good work encouraging them to keep up their good job of offering their best services to students; five, well-financed tertiary institutions will be confident by being transparent and accountable about their progress and their impact in the society to the extent that governments will be encouraged to invest more in them.

4.5. STRATEGIES FOR IMPROVING TERTIARY EDUCATION IN ASIA

As the way of life continues to change rapidly, so does the tertiary education system need to change? The change in tertiary education is required to go hand in hand with the changes in the skill set required in the labor market. For instance, the skills which were required to build a house in the nineteenth century are different from the skills required to build a house in the 21st century (Mok, 2012). This is because, house designs have changed, so there is a need for improvement of skills to design a 21st century house; the tools used in construction in the nineteenth have advanced and are different from the tools used in the 21st century, meaning there is a need for change in the skills in order to use the new tools (Figure 4.1).

Figure 4.1. An image showing a tertiary institution in one of the Asian continents.

Source: https://www.e-ir.info/2014/07/06/the-rise-of-east-asian-higher-education-and-science/.

The change in the tertiary education system is divided into different categories, to ensure that it is deep and strategic in nature. One, there is the division of Internal Structure of Tertiary institutions, it needs to be changed; two, the external structure of tertiary institutions needs to be changed; three, the system of cost and financing in tertiary institutions ought to be implemented; four, the administration and governance in tertiary institutions also ought to be implemented; and lastly, the access and equity in tertiary institutions need to be changed too.

4.5.1. Internal Structure

The internal structure in tertiary institutions comprises activities that are carried out within the institution, and which determine the output in tertiary institutions. The quality and quantity of study content being offered to students; the performance of students in their respective area of study; the quantity of institutional staff and the quality of their work; the quantity and quality of study resources for both staff members and students; the administrative structure of the institution; among others are all part of the internal structure (Mitchell and Desai, 2005). The entire internal structure ought to be well balanced amongst all of its components to ensure the

success of the tertiary institution in all levels. Briefly, the balancing of the components which make up the internal structure should be such that; one, the identification of the priorities of a tertiary institution, and align them with the necessary amount of resources ensuring that resources are not misused while trying to accomplish all sorts of goals which are not that important to the institution. Two, the system set in place to guide the recruitment of institutional staff should be improved every now and then. Such improvements will ensure that the staff members being employed, for instance, the lectures, have the best qualifications which will help in ensuring that students are equipped with skills relevant to the new labor market demands. Three, the quantity of institutional staff should be balanced in that, the ratio of students to lectures is reasonable; ensuring that a lecture is able to reach each and every student and assist them in perfecting their weak spots in the courses; a move which guarantees graduation of the best graduates from Asian tertiary institutions. Institutional staff ought to be constantly motivated by their respective institutions; for instance, by offering them quality pay that matches their efforts. Four, the evaluation system for both the institutional staff and the students in most tertiary institutions ought to be evaluated. The quality of the services being offered by institutional staff members need to be evaluated from time to time to ensure that it still matches the required skill set by the labor market; for tertiary institutions are all about shaping students for the outside world, the labor market (Macpherson et al., 2014). The performance of students also ought to be evaluated from time to time to ensure that their level of understanding and skill set promises better results for them at the end of their study period. Five, the culture in most tertiary institutions has been ruled out to be monotonous. It is high time, tertiary institutions in Asian countries embrace a new culture of positivity. A culture that motivates both students and institutional staff to enjoy their studies and work respectively; and have a positive attitude towards the institution. Sixth, the research activities conducted in tertiary institutions ought to be embraced with a positive attitude. Students should be encouraged to invest more of their time in research projects, for with research, they will be exposed to a new skill set different from what they are taught in class; or the betterment of the skill set they already have.

The internal structure in tertiary institutions helps in defining the main mission which ought to be the top priority in each specific tertiary institution. This means that there should exist different tertiary institutions which aim in fulfilling different missions. For instance, some tertiary institutions should specialize in offering the best teaching courses within Asian countries;

other institutions should focus on offering the best medical courses; other institutions should have the chance to offer the best engineering courses; another to offer the best agricultural courses; another to offer law-related course; another to offer technology courses; among others. This way, conflicts between different resources in institutions will be eliminated; because, there will be the availability of just the necessary resources in each institution, making it easy for governments to share their resources equally among tertiary institutions.

As stated earlier, the recruitment process for institutional staff should be conducted in a way that ensures that only qualified individuals are employed. One of the main reasons why the quality of education being offered in tertiary institutions is low in Asian countries is because of the employment of less qualified individuals. Furthermore, institutional staff plays a big role in shaping the image of a tertiary institution. The quality of services they offer determines the ranking level of a tertiary institution. During recruitment, tertiary institutions should ensure that they select individuals who have solid knowledge in their area of expertise; their teaching and communication skills are one of the best to ensure that they interact well with students and offer them the best services; their level of research competence since most tertiary institutions conduct research projects; among other qualities (Cummings et al., 2014). Institutional staff should be provided with a platform within the institution where they would be able to perfect their skills and be in line with the changes in the world. Tertiary institutions should provide institutional staff with opportunities that expose them to new ideas; new strategies in their respective area of specialization; challenges that push them to perfect their skillset; among others. Governments in Asian countries should be willing to fund formal professional development programs for institutional staff members allowing them to share their skills with each other from different parts, and also be able to perfect their already existing skills by learning from others. Such programs for professional development need to be conducted frequently.

Tertiary institutions should embrace the culture of encouraging their staff members to do better. For instance, institutional staff members could be presented with monthly incentives. Such incentives could be in the form of bonuses in their salary, or institutional trips, among others. Apart from the offering of incentives, tertiary institutions should develop a culture that evaluates the performance of the staff. Staff members should be evaluated from time to time to ensure that they are offering quality services to the institution. If possible, the evaluated process should be random. The best

institutional staff members should be awarded for their performance, whereas the others should be challenged to do better. When it comes to the paying of salaries to institutional staff members; tertiary institutions ought to embrace the culture of compensating their staff with an amount that is equivalent to the quality of services they deliver. Underpaid institutional staff are being forced to look for side hustles outside their main work institution, giving them limited time to interact with their students and less time to prepare for their classes for they are too busy finding ways to supplement their salary so as to fund their living status. However, with good pay, there will not be a need for side hustle institutional staff, giving them ample time to deliver their best to the institution.

As stated earlier, tertiary institutions ought to develop a positive culture within their institutions to eliminate the monotony which serves as a discouragement to both the staff members and the teachers. In most institutions, both the staff members and the students are under a lot of pressure to the extent that it is like they are being supervised for every move they make. Tertiary institutions comprise of young adults as students, who are mature enough to make the right decisions for themselves. Therefore, it is high time that the extreme supervision for students in tertiary institutions is dropped. The same case applies to the institutional staff members. They should be given room to do their best, and in case they make mistakes, they ought to be corrected in the most appropriate way; after all, human is to err. Basically, tertiary institutions should allow their students to develop the skill of accountability, by granting them more freedom; for with less freedom, students will never master the art of being accountable. The same applies to the institutional staff members, they should be given their own space to deliver their best services without the feeling of they are being forced to, but because it is their responsibility (Marginson, 2011). The second culture which is believed to be the main reason why most tertiary institutions thrive is integrity. Institutions which uphold the virtue of integrity are able to grow fast. With integrity, it means that students should be discouraged against plagiarism, more so in their assignments and research projects. Students ought to be discouraged against cheating in examinations, and if possible, laws should be formulated on the serious consequences of cheating in an exam. As for the institutional staff, they should be discouraged against corruption; for it is corruption that brings down most institutions. The lack of integrity among students threatens the quality of education and also destroys the reputation of an institution; for upon graduation, the institution will have produced individuals with grades attained through cheating, and not through

their hard work; meaning that the graduates will not be skilled enough for the labor market. The third culture which is important for the prosperity of tertiary institution is collegiality. As the name suggests, collegiality is the bond among staff members within a certain organization. All the staff members of tertiary institutions should be bonded in such a way that there is a sense of belonging; that they belong to a larger family of the institution. Such bonds promote the morale of institutional staff members, ensuring that they deliver quality services and that they are satisfied with their roles, for they are a part of a bigger society within the tertiary institution.

As stated earlier, the research activities conducted in tertiary institutions not only benefit the university but the entire nation. Most tertiary institutions in Asia are under the pressure of delivering innovative ideas in order to give a return to the investments made in tertiary institutions. For this reason, most governments and also non-governmental organizations need to invest more and more in tertiary institutions, more so in the research departments in tertiary institutions. The conducting of excellent research is quite expensive. The underdeveloped tertiary institution finds it hard to contribute to the innovations being invented in tertiary institutions because they are not well-financed to conduct research activities. If enough funds are invested in all levels and types of tertiary institutions, most countries in Asia are guaranteed prosperity for they will have solutions to some of their most dire problems; they will have the betterment of their way of life making life easier for them; among other benefits. Apart from investing in research activities, the tertiary institution should make it their top priority to educate its students on what research. Secondly, a tertiary institution in Asian countries should also make it their priority to set aside departments that purely focus on the running of research projects (Maitra and Mukhopadhyay, 2012). Thirdly, all students in the tertiary institution should be taught in the early days of their tertiary education how to conduct research activities so that they are prepared to be top-notch researchers as early as possible. In almost all tertiary institutions, the staff members should be at the forefront of promoting the culture of research by encouraging their students to do more and more research activities. Back to investing, the money invested in research activities should be used for the purchase of the best equipment.

4.5.2. External Structure

The external structure in tertiary institutions is as important as the internal structure. The external structure comprises two main components. Briefly, the first component addresses the issue of the relevance of education

offered to students to the outside world that is the labor market. The second component addresses the issue of the need to further advance the skills obtained from tertiary institutions in the future, which does also help in perfecting the already acquired skills.

The first component of the relevance of education offered in tertiary institutions to the outside world; it does also address the issue of transition from secondary school to tertiary institutions. Basically, this component is all about transition processes. On the transition from secondary school to tertiary institutions, governments should ensure that the curriculum being offered in such secondary schools allows for a smooth transition from secondary to tertiary institutions. In most cases, there is always a misalignment in the shifting from secondary schools to tertiary institutions. True, most students do manage to meet the requirements, but the fact is that they are not always mentally prepared for what is in store for them upon enrollment to tertiary institutions. Most of them assume that the way they used to conduct their studies at the secondary level would be similar to tertiary institutions (Martin and Chu, 2015). Others have the misconception that tertiary school require less effort for one to succeed unlike in secondary schools where a lot of efforts are required for one to succeed. To help in smooth transitioning from secondary schools to tertiary institutions, learners should be prepared for tertiary institutions while still at the secondary level. Secondary school teachers ought to be equipped with the necessary requirements which will help them in shaping students for tertiary institutions. For instance, when it comes to classwork, secondary school students should be prepared as early as in their second last year in secondary on how to handle the pressure that comes with handling a lot of workloads at university levels. Guidance and counseling sessions should be held constantly to help the students in being mentally prepared for their life in tertiary institutions, for there they will have lots of freedom, and they are required to be responsible for their own lives and accountable for everything.

The culture of only checking the performance of the final examinations in a secondary school as a requirement to enroll in tertiary institutions should be combined with other requirements. For instance, tertiary institutions in different countries in Asia could be allowed to conduct their own entrance examinations, which will help students have a taste of what university is like. The entrance examination could be evaluated from the basics taught at secondary school level but set in a way that is university friendly but not secondary school style. Basically, most students should be skilled enough to smoothly transition from secondary schools to university levels.

The second component is on the employability of tertiary institution graduates. As stated earlier, most of the graduates' graduate from school with only the knowledge and not the skill set required in the labor market. Also, most of the skills demanded by the labor market do differ from the skills being taught in tertiary institutions. With the misalignment in skill set, the rate of unemployment has increased tremendously across various nations in Asia. This issue needs to be addressed immediately by ensuring that the content being taught to students in tertiary institutions is updated from time to time such that it goes hand in hand with the required skill set in the labor market. This way, graduates will be able to graduate from tertiary institutions well knowledgeable and skilled for the labor market, and the claims of low efficiency in the employability of graduates are guaranteed to drop.

The third issue affecting the external structure of tertiary institutions is that there is an imbalance in the level of admission of students in the different divisions of tertiary institutions across the Asian continent. This has been caused by the increase of private tertiary institutions which are offering some courses at a lower price, making it easy for qualified school graduates from low backgrounds to enroll in such cheap institutions. Such a move leaves public tertiary institutions offering better courses such as in the area of science and technology, at a bit higher price, be short of students. This issue should be addressed by ensuring that all tertiary institutions provide quality education to all students at a balanced price; ensuring that each and every tertiary institution, be it private or public, has a balanced number of students. The misconception that graduates from private tertiary institutions are way more qualified for the labor market compared to graduates from public tertiary institutions should be eliminated. This is because, such a belief has left many graduates from public universities unemployed (Lim, 2016). Such an issue should be addressed by ensuring that both private and public tertiary institutions are equally evaluated by governments in different Asian countries to determine the quality of their education and the effectiveness of the examinations they offer to their students.

The 4th external structure component is on the growing rise in unemployment among graduates from tertiary institutions. One of the main factors contributing to the unemployment issues is the increasing number of graduates. The more the people who graduate with decrease, the less the number of jobs available for them; leaving a large percentage unemployed. The second thing contributing to unemployment is the issue of misalignment in skillset, as it has been stated severally in the above sections.

The third issue is that the competitiveness for employment opportunities in different nations in Asia is no longer local, but international; meaning that graduates are competing across the continent of Asia for job opportunities. The issue of an increase in the number of graduates should be addressed by ensuring that more and more opportunities are being created to create jobs for graduates. The issue of skill set should be addressed through the constant updating of the skill set being offered to a student to match the skill demanded in the labor market. The issue of international competitiveness for job opportunities could be addressed by ensuring that all tertiary levels in all Asian countries are balanced such that they offer the same skills for fair competition for job opportunities among graduates at an international level (Lee et al., 2013). Most graduates lack knowledge about the available jobs for them; hence it is important that before graduating, graduates be enlightened on the possible jobs they should be part of after graduation. The issue of employees requiring experienced individuals should be eliminated. Employers should work hand in hand with tertiary institutions to ensure that employers have enough belief in the graduates and they do not have to state experience as one of their requirements for employment.

4.5.3. Cost and Financing

For tertiary education to improve in Asia nations, the issue of cost and financing ought to be addressed. Tertiary education is quite expensive, from the need of money to pay institutional staff, to money needed to improve the institution's infrastructure, to money needed to purchase different equipment required for the process of learning, among other requirements. When it comes to cost, it is used mostly to refer to the amount of money required to offer tertiary education to learners; whereas financing is a term used to refer to the amount of money required to purchase different resources which make the learning process smoother. Most governments in different Asian countries are complaining about the large sums of money they invest in tertiary education, yet it is not enough for students and other stakeholders in tertiary institutions to complain of the low quality of tertiary education due to lack of enough resources.

In order to address the issue of cost and funding in tertiary institutions, governments ought to find alternative sources for funding tertiary institutions.

As stated earlier, tertiary education is expensive, from running it to offering it to students. One of the new sources of funding for tertiary institutions is the internal privatization of public tertiary institutions. Public

tertiary institutions mostly rely on governments to fund most of their activities and require a small amount of money from the students to fund the remaining activities which are not funded by the government. Most tertiary institutions enroll only qualified students from secondary school to join them under the category of government-sponsored students. However, with the internal privatization of public tertiary institutions, students who did not meet the qualifications for enrollment to tertiary institutions are given the opportunity to enroll in public tertiary institutions under the category of parallel students. Parallel students pay much higher school fees since the money from the government does not cater to the resources they use. This way, public tertiary institutions are able to fund their activities, ensuring that everything runs smoothly with minimal financial challenges. Still, under the privatization of public tertiary institutions; tertiary institutions are offering short courses which are part-time to individuals of different age groups and with different qualifications (Chiswick and DebBurman, 2004). Through the offering of such short courses, public tertiary institutions are now able to boost their budgets and meet a large percentage of their needs.

The second new source of funding for tertiary institutions is the increase in the number of private tertiary institutions across many nations in the Asian continent. With the privatization of tertiary institutions, most of the funding will have to come from the students and their families and not the government. The privatization of tertiary institutions serves as a great disadvantage among the students from poor backgrounds. However, looking at the brighter side, the fact is that, there will be enough funds to fund almost all the activities in a tertiary institution improving their quality of education and the services they offer to the entire society. After the privatization of tertiary institutions, governments are encouraged to open platforms that offer loans to students. These loans will ensure that students have enough funds to pay for their school fees and also for their upkeep while in tertiary institutions. These loans are availed to all students, both from public and private tertiary institutions. Upon completion of a student's study duration, they are then given the responsibility of paying for their loans. After getting employed, graduates are required to sign a certain agreement that allows the institutions which offered them student loans to frequently take a certain percentage of their salaries until they are done with the payment of the loans they signed for while in tertiary institutions.

The third way for ensuring that tertiary institutions are adequately financed for their activities is by eliminating corruption. Corruption is a disease that has turned into a pandemic not only in Asian countries but across

the globe. The rate at which individuals are stealing from tertiary institutions in Asian countries is high, leaving most of them underfunded and struggling with how to effectively run their activities. In order to ensure that there are enough funds for tertiary institutions, serious laws ought to be formulated which warm individuals against corruption; and if any individual is found guilty of corruption, within a tertiary institution, they should be made to face dire consequences and they should not even be spared.

In tertiary institutions, there exist many ways in which finances could be saved. For instance, in the issues of feeding students; institutions specializing in agricultural courses could encourage their students to participate more in research projects which will boost the rate of food production within an institution. With enough food production, a tertiary institution is able to save on the cost incurred in the purchase of food for students. Still, under research projects, tertiary institutions should encourage their students to improve their creativity levels and work on innovative ideas which could be sold to governments and other organizations; earning money for both the students and the institution at large (Kosonen, 2005).

4.5.4. Administration and Governance

It is believed that the success of the most tertiary institution is dependent on the quality of administration and governance of the institution. Tertiary institutions are quite complex to manage. This is because tertiary institutions accommodate large numbers of students from all parts of Asia; and the more the number of students, the more the institutional staff required to ensure that there is smooth running of activities. This means that the capacity of administrative personal ought to be a ration that is fair compared to the number of students. There will be a need for administrative personnel who will govern the students; another lot to govern the institutional staff; another group of administrative personnel to govern the running of different activities in tertiary institutions.

Basically, the administration in tertiary institutions, both private and public ought to be top-notch; for there is a need for designing, analyzing, managing, and evaluating different activities in tertiary institutions.

One of the ways aimed at improving the administration in tertiary institutions is the consolidation move. With consolidation, it means that tertiary institutions are to be assigned to specific ministries in Asian governments which are in direct link with them. For instance, tertiary education, which offers medical courses is not to be governed by the

ministry of health, but by the ministry of tertiary education. This is because, the ministry of health will be focusing on matters to do with health and not matters to do with the study of education on the ways of offering health services; whereas the ministry of tertiary education will focus on ensuring that medical students are provided with the best equipment and the best resources in order to perfect their skills and knowledge on matters to do with health.

In previous years, most tertiary institutions were under one large body which governed each and every step they made. The move on decentralization, whereby tertiary institutions are given the mandate to rule themselves by being solely responsible for every move they make has improved their quality of administration (Knight, 2012). When it comes to the spending of finances, a quality administration that is not being limited in any way is able to come up with ways which will guarantee the appropriate spending of finances; and in some cases, implementation of new and better ways of outsourcing funds from different avenues within the institutions. Basically, with decentralization, administrative systems in tertiary institutions are free from any restrictions; however, they are accountable for every decision they make.

Different administrations in tertiary institutions are to be let free; such that, as stated earlier, they are not being overseen by anyone. With such freedom, several administrations in different tertiary institutions have been able to come together and form groups that allow for the uniform evaluation of the progress in tertiary institutions. Several administrations cooperating ensures that they are able to improve the quality of the education being offered in their institutions by sharing different ideas on how to better their services. With enough freedom being offered to tertiary institutions, they are able to make sober decisions that are in the best interest of the students.

Most governments in different Asian countries have been so much invested in the academics of tertiary education. This has served as a disadvantage to different administrations in tertiary institutions for their voice of issues to do with academics have been neglected over and over again. It is high time that tertiary institutions be given their academic freedom such that they are free to make their own decisions on the way forward in their academics; from the grading system in tertiary institutions to the promotion of students from one academic year to the other, to among other academic decision should be left to the administration to make; and no politicians should play a part in such decisions. If politics are to be included

in tertiary education, it is enough to guarantee that the quality of tertiary education will drop for the administration will not have the freedom to make the right decisions based on their expertise as scholars.

Well-organized administration systems in tertiary institutions are able to conduct different activities appropriately. For instance, the personnel in tertiary institutions are managed in the best ways possible under the governance of a good administration. The freedom of tertiary institutions to manage their personnel ensures that they find ways which ensure that the personnel deliver quality services within the institution. Government employed personnel working in tertiary institutions tend to be a bit hard to manage, for they believe that there is little that the institution can do about them. If possible, governments should implement ways in which they will hand over the management of tertiary institutions personnel to the administration in their workplace to ensure that they are held accountable for every move they make and that they are not excepted when it comes to serious issues affecting the institution.

When it comes to the selection of administrative personnel, the panels responsible for such selection should consider selecting different individuals for different departments based on their original career path. The selection of administrative personnel in line with their career path ensures that they offer the best quality services in their area of governance since it is their specialty (Faragher et al., 2021).

4.5.5. Access and Equity

Access to tertiary education should be easy for all individuals across all the countries in Asia, ensuring that they are able to accommodate a large number of students. Equity ensures that any student from any part of the Asian continent is able to be enrolled in any tertiary institution in Asia. Due to the factor of performance, many individuals have not been able to join tertiary institutions because they did not meet the academic requirements. Others, due to the issue of the cost that comes with enrolling in tertiary institutions, have not been able to gain access to tertiary education.

The establishment of more and more private tertiary institutions will ensure that individuals across all Asian countries are able to gain access to tertiary education despite the fact that they did not qualify academically. The only disadvantage that comes with private tertiary education is the issue of cost. As stated earlier, individuals are allowed to access student loans which help in catering for their school fees and also for their upkeep.

The issue of cost that comes with enrollment to tertiary institutions could be addressed by the establishment of programs that offer scholarships to students. With such scholarship, students from low backgrounds are able to access tertiary education at an affordable price for them.

To improve the access to tertiary education, institutions could provide online platforms which would help in making it easy for everybody from anywhere to study.

Chapter 5

Open and Distance Education in Asia

CONTENTS

5.1. INTRODUCTION

According to the World Bank Country Classification, Asia is considered to be among the top developing countries in the world and it consists of 48 countries and out of these 48 countries, 36 countries are considered to be highly developed. Approximately 60% of the world's population live in Asia this is according to the statics provided by the world's population. Asia is considered to be highly populated because most people prefer living in this area because it is very developed and has more to offer in terms of infrastructure and other convenient features. The population mainly consists of people who are between the age of 30 to 31 (King and Guerra, 2005). Over the past decade, more people are enrolling in higher education across the world. The population of those people enrolling in higher education has increased by over 50%. The population in Asia is quickly increasing, which has led to the growth in the population of young people. This has led to the increase in demand for education (Figure 5.1).

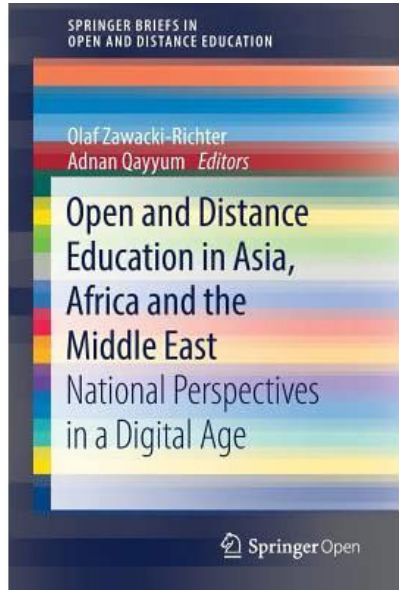

Figure 5.1. Open and distance education in Asia.

Source: https://www.springer.com/gp/book/9789811357862

When it comes to national development, higher education has played a key role in ensuring that the development process becomes a success. It has helped to improve the quality of education and has helped the whole

nations find capable graduates who will be essential in running the countries and the whole world's economy. This has led to the constant demand for improved systems of learning. The graduates are equipped with skills that make them an essential tool in the development process. Higher learning has enabled people to become innovative because it has created channels where students and other people are able to invoke critical thinking, which is also a necessary tool when it comes to the development of a country. However, like any other forms of learning, there are certain challenges that have been observed in Asia and across the world.

5.2. HIGHER EDUCATION IN ASIA IN THE 21ST CENTURY

As stated, most people are opting for higher education to help them achieve their long-term goals, especially when it involves their career choices. In the 21st century, higher education has been embraced by many countries, especially in Asia. There are a lot of benefits that have been associated with higher education across the world. The government and other institutions of learning have played a major role in encouraging people to venture into higher learning because of the benefits that are associated with this type of learning. The benefits of higher education can be divided into several sectors such as:

1. ***Economic*:** People who have acquired higher education have a higher chance of acquiring better job opportunities. In a business setting, employers look for people who have more qualifications in terms of education. This means that the more the papers, the higher the chances of securing a job. This is because once a person has received higher education, their skills become better than those who did not continue with their studies. They have a better chance of helping a business to meet its objectives. According to the research conducted, these people earn more and also have a lower probability of becoming unemployed once they are done with their studies (Kirkpatrick and Liddicoat, 2017).
2. ***Health*:** This can be explained in terms of satisfaction. Those who have acquired certificates from their higher institutions of learning are in a better position to secure a job. The job opportunity that is presented to them allows them to meet their needs and those of their loved ones. This leads to fulfillment and satisfaction because they do not have to stress over how they will make ends meet.

Stress leads to poor health because it can cause illnesses such as high blood pressure and ulcers, which can be life-threatening. As stated, gainful employment has an added advantage to people who have responsibilities. This helps to reduce stress which is caused by various financial obligations which improve the health of a person and their quality of life.

3. ***Civic Involvement*:** This can be explained by the responsibilities that people have towards society at large. When one is employed, they are able to perform their civic responsibility of giving back to society. They are in a position to help those who are in need and those people who do not have any source of income. They are able to contribute to the development of society by helping those who need assistance. A person who has acquired higher education is in a position to join a charitable organization and contribute towards ensuring that the minority groups in a society have what they need to facilitate their day-to-day activities.
4. ***Enhances Better Communication*:** People who are learned are able to clearly communicate their thoughts to other people. They are also able to air out their grievances in the right manner. This has helped them come up with solutions to problems that affect them. In a business setting, they are able to voice out their opinion and others can understand their thought process. This has facilitated the business meeting its goals. They are often appointed leaders and are able to communicate with other employees in case there is an issue that needs to be addressed (Kapoor, 2009). When appointed as leaders, they are expected to maintain proper communication channels to avoid miscommunication which can lead to the fall of a business. People who are well educated can also be elected leaders by people in a society. They are able to understand their people's grievances and are able to come up with solutions that will allow the development process to be successful.

More opportunities are created for those people who have acquired higher education. In the present times, when a person is a high school graduate, they do not have many opportunities like they did in the past. The world is changing, and people are demanding more, especially when it comes to the development process of either an organization or the whole country. People are often motivated by the thought of having a rewarding career. For this to happen, people are expected to have a solid educational background. They

are expected to have more to offer in terms of education which has made higher education an essential tool in the success of a person, organization, or a country. Higher education is vital because it helps in teaching a person and training them in their field of expertise. It teaches people how to critically analyze and understand complex subjects as well as communicating one's ideas effectively. It allows one to become a professional and equips a person with skills needed in their line of work.

Higher education helps in providing a competitive edge in the career market. It is evident from the research carried and personal observation that finding a good-paying job is not easy and certainly not a guarantee. There are people who are educated, and yet they have remained to be unemployed, and the new career opportunities are not enough to make sure that everyone has a job. When one goes to look for a job, you should know that you are competing with people who have experience and more papers to offer your employee (Jensen, 2012). They should also understand that this has contributed to high rates of employment because people who have paper showing that they achieved higher education are given priority.

This means that employers favor those who have college degrees over those people who only graduated from high school. It is also possible for those who have college degrees to replace people who completed high school. It is also important to note that companies are going to the extent of paying tuition fees for their employees because they believe that a college graduate has more to offer compared to a high school graduate. A degree from a reputable college is considered to be an investment that provides a person with substantial rewards in their career and their lives. It will also benefit the company because they will be able to come with new and innovative ideas that will help increase their competitive advantage over other companies.

When it comes to laying employees, college graduates are often not laid off because they have more to offer the company in terms of the skills needed to ensure that the company achieves its objectives. They are more skilled and they have experience which ensures that a company is able to achieve its objectives. However, the college graduate can be fired if their behavior compromises the reputation of the business. No matter what they have to offer those in charge of running the business will always choose a person who has integrity compared to a person who is skilled and well knowledgeable but they do not behave in the right manner (Jacob and Lefgren, 2004). However, it is vital to note that it is not a guarantee that a person who has obtained higher education will automatically secure a job.

This is because the demand for job opportunities is high as compared to the available jobs. People who have higher education can also suffer like those who have only graduated from high school.

5.3. PROBLEMS FACING HIGHER EDUCATION IN ASIA IN THE 21ST CENTURY

There are certain challenges that face higher education in Asia, especially in the 21st century. Some of the challenges include:

- Projected education needs worldwide and in the region. According to the research conducted, the demand for higher education will continue to rise over the coming people because many people are expected to have certificates that show they had higher education for them to be employed in various places of work. It is also important to note that according to the statistics that were generated out of the research conducted, it was estimated that 9.4% of comprises of people who are between the ages of 15 to 24 years and they are all expected to be in tertiary institutions earning their higher education. By the year 2030, it is expected that the population of young people who will be needing higher education will increase to 14.4%. This means that the educational needs will increase and as there will be more students enrolled in the institutions. This is a challenge because the government and the tertiary institutions might not be able to keep up with the needs of these students.
- The cost of funding higher education is quite high for the institution and the students. Students are expected to pay a fee for the period that they will be studying, and most of the courses are expensive. This becomes a problem because not every student is able to keep up with the cost, especially the tuition fee (Huang, 2007). In some situations, where the students are sponsored, it becomes impossible for those sponsoring them to keep up with the cost of tuition fees, and they are forced to withdraw support. When it comes to the institutions that offer higher learning, they are unable to keep up with the costs, and this leads to a decline in the services they provide. It is also important to note that when the institution is unable to keep up with its financial obligations, they are often forced to shut down, which also leads to the student being affected. Another issue is that when the institution is unable

to keep up with their financial obligations, they are forced to lay off some of their employees and sometimes lecturers, which leads to the student being affected.

- Racial discrimination. In Asia, there are a lot of cases recorded where people are considered to be racists. Asia is usually accompanied by racial discrimination when it comes to people of color. The higher institutions of learning are mostly faced with issues of racial discrimination, which has continued to be a problem over the years. Many students are discriminated against based on their religion, culture, or race. This often discourages students from joining these institutions, or some of them drop out before they achieve their goals. In severe cases, racial discrimination leads to the students losing their lives after riots erupt and they are forced to fight for their lives. Racial discrimination has led to the deterioration of tertiary institutions and higher education.
- Another challenge that is faced by higher education in Asia is that there is a lack of quality research work. This means that the research available for the education system is not adequate, which leads to the deterioration of the systems of learning in Asia and across the world. It is a fundamental necessity that should be the top priority of most tertiary institutions as it is what determines whether more students will enroll in a certain institution or not (Horie, 2014). Lack of quality research work also means that there are no funds to support institutions that are of national importance. There is a specific budget that is set aside for ensuring that research is carried out, but the institutions are unable to use the money because they lack the resources which are important in the research process. Lack of quality research work also limits the information given to the students by the lecturers, and this means that the maximum potential of the student is not fully utilized.
- There are inadequate infrastructures and facilities to facilitate higher education. The institutions of learning are limited, and the infrastructures in those institutions are usually very poor. They lack funding which is necessary to ensure that the infrastructures in the schools are kept under optimum conditions to facilitate easier learning of the students. The facilities are also limited depending on the course that a student is willing to take. It is clear that technical courses are given more priority than other courses because most of the professions in Asia are usually

technical professions. This includes courses such as computer programming and engineering. However, it is also important to note that institutions that offer these courses also face the problem of inadequate infrastructure that is necessary, especially when it comes to the practical part of the courses. They also lack infrastructure in terms of roads which the students use to get to their institutions of learning and also infrastructure such as libraries which are necessary for the studying process of the students (Ho, 2014). Poor infrastructure has led to the decline of tertiary institutions because they lack students, which means that they have no market to serve, which eventually leads to the closure of such institutions. Inadequate infrastructure can also lead to the lack of teachers and lecturers who facilitate the learning process. A lecturer is unable to attend the lecture, the students become demoralized, and they fall behind in their courses which leads to the deterioration of higher education in Asia.

- Poor management of the tertiary institutions because most of the leaders see this as an opportunity to become corrupt and practice certain practices for their own selfish interest. There are specific funds that are allocated by the government to fund the learning process in tertiary institutions. Poor management means that there is a lot of corruption in the tertiary institutions, and as a result, the funds are usually mishandled, and mostly they are embezzled and fail to perform their specific role, which is to ensure that the students have what it takes to facilitate an easier learning process. Poor leadership also means that decisions that affect the school are usually not highly considered, which leads to poor decision-making processes by the management team, and it affects the students as well as the institution at large (Hayhoe and Li, 2008). For example, when the manager is unable to make decisions that affect the institution, they put the institution in a tough position where they are unable to make minor decisions that affect the day-to-day learning activities of the students and also affects the problem-solving process of the whole institution. It is expected that this institution has a systematic way of handling their issues so as to ensure that they control an issue before it escalates and becomes a much bigger problem. When there is poor management, such issues are not well handled, and they end up escalating and

eventually leads to more problems or other pilings up of issues that affect the quality of education in these institutions.

- Another issue that tertiary institutions face is the low rate of employment among the graduates, which demoralizes their students who are taking certain courses. The graduates lack job opportunities after they are done with their studies which demoralizes other students that are still in school. There is no proper system that ensures students are guaranteed an employment opportunity after they graduate. There are many cases of graduates who do not have any jobs and are left to do manual work so as to ensure that they satisfy their needs. Unemployment is a factor that has led to the increase of social crimes and has led to insecurity cases in Asia. This is because those who are unemployed often turn to a life of crime so that they can be able to transfer their needs as well as their loved ones. There is also an issue of job opportunities that oppress the graduates despite their experience that the students have. The graduates are subjected to harsh job environments with little or no pay, which has continued to demoralize other students who are yet to join the tertiary institutions and they mostly end up stopping their studies after they are done with high school (Hawkins, 2012). There is no guarantee that the students who have degrees or diplomas will succeed in the future after they are done with their studies. This is because more people are joining and enrolling in tertiary institutions, and more people are educated, which leads to competition when it comes to looking for job opportunities, especially for graduates who only have degrees to offer to their employers. Most employers are looking for an added advantage when hiring new members of staff. This is because they would like to maximize their organizations or businesses so that they can get more returns or rather they can have profit to continue with their day-to-day activities of their businesses and have enough funds to ensure that their businesses run smoothly.

5.4. OPEN AND DISTANCE LEARNING IN ASIA

Most of the open and we cannot even Nations in Asia are undertaken by open universities operating in the region. The definition of an Open University is given by Jones when he states that open universities are considered to be

institutions that are political institutions that are concerned with issues that other systems of education cannot be able to deal with or rather choose not to deal with such issues. Some of the issues include building capacity, increasing the opportunity of an individual and ensuring that there is social justice, encouraging change which is associated with higher education systems, and building the nation. It is also important to note that Open University has its own missions which are related to both the political and social context in which it works (Hallinger and Lu, 2011). In cases where students are located in remote areas or rather in cases where students are not located in areas where there are learning institutions are based specifically the open universities, these universities offer programs and courses which incorporate the distance education mode and is specifically characterized by the separation of learners and teachers in terms of the geographical location of the learner's teachers and the university.

This form of learning is suitable for accessing students who are not geographically located near the open universities, and it is very important because it is inclusive and accessible to many as compared to the residential or conventional universities. Residential or conventional University means that the students must physically avail themselves for classes and examinations because there are no other alternatives to students who are not geographically located in the area where the university is situated. The geographical separation is breached by using technology which is used to deliver substances that contain instructions that are supposed to support the learner during their learning process. It is important to note that in Asia, it is estimated that more than 70 institutions offer such programs which involve distance education, and more students are able to enroll in such institutions. They are able to take on the courses that they prefer compared to going to the residential universities and opting to take courses which they are not interested in. The institutions are strategically positioned in about 20 countries and can either operate as individual universities they can run as part of a conventional academic institution which means that they offer their services as part of a group of learning institutions that are specifically meant to offer the distance form of learning. Another important aspect of this institution of the university is that they are able to operate at levels that are considered to be a wide range of scales.

However, it is important to note that the systems of operation in which universities are usually not the same, and they vary depending on how the instructions are delivered to the students from residential open universities to fully online or distance learning operation. There is a specific University

known as the Indira Gandhi Open University, which is abbreviated as IGNOU, and it is located in India. This university is considered to be the world's largest university, and in 2017, it was noted that it contained over 3 million students (Forlin and Lian, 2008). Another example is the University of the Philippines Open University which is abbreviated as UPOU this university only has 4000 students who are enrolled to undertake the degree programs. However, this university is strictly based on offering a full distance learning mode. Other universities that promote open and distance learning are considered to be members of the Asian Association of Open Universities, which is abbreviated as AAOU. They are responsible for linking students from various walks of life in various geographical locations and ensuring that they are able to undertake their courses without any major hiccups.

Such institutions include Anadolu University, which is located in Turkey and was founded in 1958, and the enrollment for students who undertake the online courses is estimated to be at 1,974,343. Another University is the University of Terbuka which is found in Indonesia and was founded in the year 1984 and is estimated to have 300,000 students who undertake the open and distance learning mode. The Korea National Open University, which is found in South Korea, was founded in 1972 and has 210,978 students who are undertaking the online courses provided by the institution. The Payame Noor University is located in Iran and was founded in 1987 and is known to host approximately 800,000 students who undertake open and distance education. The major objective of these educational institutions is to ensure that students from across the world have equal chances of learning from institutions of their choices without necessarily changing their geographical locations. It also ensures that students are provided with a flexible way of learning which can accommodate their lifestyles because they are students who have to work so that they can be able to pay for their tuition fee. For those students who work they are provided with evening classes that are conducted online, and they can be able to read at the comfort of their own houses after a long day of work (Hashim et al., 2011). The graduation process is usually similar unless the students are asked to avail themselves for physical graduation which is usually not a must because there are students who are located in very remote areas across the world and cannot be able to travel all the way to Asia or any other country for graduation purposes. They are all given an opportunity to read and better their life without necessarily changing their whole life or moving to specific countries so that they can acquire education. This mode of learning is usually very flexible and has

continued to prove that it has a lot of benefits for students who are unable to afford residential universities because of financial constraints or other factors. In cases where students are in and admitted to hospital, they can be able to follow up on the lectures without necessarily having a problem.

5.5. REGIONAL COOPERATION AMONG OPEN UNIVERSITIES IN ASIA

There is certain regional cooperation among Open University is in Asia and they include:

1. ***The Asian Association of Open Universities Staff Exchange Fellowship Program*:** This regional corporation was established in the year 1997 and its main aim was to facilitate the exchange of knowledge as well as the experience between the open and distance education mode of learning which was to ensure that it enhances the capacities all members found in those institutions rural mutual assistance and partnering up in order to ensure that the students received the best educational Services. All the members of the Asian Association of Open Universities were considered to be the donors, and they were to contribute to the program by offering short-term fellowships, which could be either one or more to staff members of other institutions who are considered to be the recipients. They are required to spend approximately a month at the AAOU institution so that they could undergo training which was necessary for them to better their education system. The AAOU were also required to collaborate in research activities so that they could find effective methods of delivering the educational services to their students without any major hiccup. The program is also important because it allows members of staff to learn from those who are experienced so that they can devise methods that they can use to better their education systems as well as know-how to handle issues that arise from the open and distance learning mode. There are several universities that are part of the program, and this program is solely based on collaboration when it comes to research as well as some publications which have continued to benefit the universities and the members of staff.
2. ***The Curriculum Program/Course Development*:** In this case, there were five universities that collaborated and came up with

a common curriculum which was to be followed by universities that offer open and distance learning in Asia. This was done so as to ensure that there is a systematic way of dealing with students who are located in different geographical areas and to maximize the effectiveness of this mode of learning. The sound universities included The Open University Malaysia, which is abbreviated as OUM, the Hanoi Open University which is abbreviated as HOU, UPOU, UT, STOU. These universities developed a learning program for the ASEAN studies program. The benefit of this collaboration was that it led to the development and the offering of graduate certificates in the ASEAN studies program and students were able to get their masters in ASEAN studies by UPOU (Grossman et al., 2008).

3. ***Research Collaboration*:** As stated, their various collaboration activities were undertaken by the open universities in an attempt to better the learning systems for the students and make it more comfortable and convenient for students who were geographically disadvantaged and could not access the tertiary institutions of learning. There was research that mainly dealt with labor migration and institutional research which focused on the different aspects of the open and distance form of learning. The collaborative research was able to make sure that the distance learners were satisfied through various surveys which aimed at looking at areas that could be improved so as to ensure that the learning process was smooth and to ensure that the students were able to access various materials which were necessary in the learning process. There were also comparisons that were made so as to facilitate the adoption of various methods of learning which other institutions did not incorporate. However, the adoptions of these various methods of learning were only chosen from those institutions that had proved to have a grasp on this type of education system.

4. ***Exchange Through Academic Conferences*:** Where conferences are held to facilitate the exchange of academic ideas and ideas which will better the institutions of learning that have Incorporated the open and distance learning mode. Such conferences are conducted well, and different universities come together with the aim of coming up with a systematic way of dealing with

issues and exchanging ideas on how they can make the education process smoother for students who are not located in the regions where the universities are physically located.

The challenges that are faced by higher education systems in India have brought about the need for change which is usually hard to achieve, but they are striving towards ensuring that the challenges are completely eradicated through the following steps:

1. ***Making Available Open Learning Opportunities*:** There are many barriers to the delivery and receiving of educational materials as well as learning that are faced with the students as well as their teachers and lecturers. For example, the common problem is lack of funds which is needed to finance education or rather the students lack enough money to afford their education, maybe the lack of money for the tuition fee. Another issue is they are not able to access educational facilities and programs because of lack of funds and the geographical location and physical challenges. They also lack abilities and skills which are necessary for one to access and be able to continue with learning opportunities as well as access educational opportunities (Green, 2013). There are cases where there is a lack of peace in some cultures, which has led to barriers when people want to access their institutions of learning. Lack of peace is particularly important because it allows the students to move from one region to another in an attempt to access educational facilities which will ensure that the learning process is smooth and they can be able to better their lives. Open and distance learning mode has allowed some of these barriers to be completely eradicated. For example, the institutions where they do not charge any admission fees and course fees which has allowed students to be able to continue with their studies without worrying about where the funds will come from. It has also facilitated the equity of access to education and learning. These systems have also proven to be a great asset for learners who are considered to be mobile learners. Open universities are also able to continue thriving because they are not faced with the issue of lack of funds to build physical resources like classrooms.
2. ***Promoting the Culture of Sharing and Cooperation*:** It is important to note that higher institutions of education are expected to follow certain practices such as showering their ideas with other universities to open data as well as conducting research with other

universities and publishing open journals. These practices ensure that universities are able to have a strong background when it comes to the knowledge that is needed to ensure that the students are able to access information that is necessary in the learning process, especially when it comes to some of the courses that they have chosen. The culture of cooperation has ensured that the competition is strictly friendly and that students are able to borrow knowledge that is necessary for their learning process. Lecturers are also able to get knowledge that facilitates the learning process and has continued to improve the learning processes of different areas and different institutions. It is important to note that the institutions still compete, but they set aside their differences so that they come up with a way of ensuring that this learning process becomes successful and that they are able to deal with any issue that arises. The collaboration that happens between members of AAOU is a good example of the importance of collaboration.

Chapter 6

Education Development in Asia

CONTENTS

6.1. INTRODUCTION

Education development has been on the rise throughout the whole world. The concept of education development is something that is being grown and introduced into the modern world, as there is a continuous invention of technology that has to be infused with the current world to ensure there is sustainability in business. There are no criteria that indicates that a leader qualifies to be called a digital leader though, there are steps and strategies that have to be followed and taken to bring you closer to that. Digital transformation is starting to shape currently. There are vital fundamentals that need to be adhered to in order to bring forth digital leadership. These four core fundamentals include:

- Data and analytics;
- Digital business strategy;
- Innovative culture and lifestyle; and
- Staff and customer engagement.

These are the values that a leader needs to use a reference point in order to steer the organization forward into the business world.

6.2. DATA AND ANALYTICS WITH REFERENCE TO ASIA

This is the procedure of collecting specific, raw data and doing thorough scrutiny on it in order to come up with trends and solutions to problems. Many techniques are used in the analysis of data in order to achieve a certain goal. The process of data analytics has many components, and by combining the components, one will able to identify where you have been, where you are, and the projection of where you will be.

This procedure begins with the description of the data that is descriptive analytics. This aims to describe the trends that were recorded in the past. The main objective of descriptive analytics is to show what happened. In the procedure, traditional indicators are normally measured. In business an indicator such as the return of investment (ROI). Descriptions will vary in different works of life. Descriptive analytics will not be able to foresee trends or give a conclusive finding (Vickers et al., 2013).

The next core step in data analytics is advanced analytics. This step takes full advantage of high-end technology in collecting data, making forecasts, and establishing trends. Some of the advanced tools used involve

probability and statistics and machine learning. In machine learning, there are techniques used such as neural networks, natural language processing, and sentiment analysis. The introduction of quality machine learning techniques, affordable computer technology, and numerous data sets has made it accessible for these techniques to be utilized in many industries. Industries collect big data sets as it helps them in making conclusive results from complicated and varied data. The collection of big data has been made possible through the advancement of parallel processing.

6.2.1. Types of Data Analytics

When it comes to data analytics, there is a very broad spectrum. There are four core types of data analytics mainly descriptive, diagnostic, predictive, and prescriptive. Each of these analytics has an objective, and they are utilized at different levels in the data entry process. The data above is applied in business in the following ways.

Descriptive analytics is used to solve queries regarding what happened. Extensive data sets are given a summary which makes it comprehensible to the responsible parties. Through the designing of key performance indicators, businesses are able to identify and keep track of success and failures. Metrics such as return on investment are being used in business analysis. More specific metrics are also designed to help in other business operations. In this procedure, data is collected, processed, analyzed, and visualized. These help in helping us understand historical data.

In diagnostic analysis, we ask ourselves why things happened. It is used to add supplements to basic forms of descriptive analysis. Intelligence gathered from the descriptive analysis is picked and looked into deeper. Performance indicators are then analyzed to understand the reason why they improved or regressed. A three-step process is used:

- Identification of anomalies in the data set which may have been caused by changes in the metrics or a market;
- Any data that is connected to the identified anomalies are collected; and
- Mathematical methods are applied to identify the relationships and trends which will help explain the anomalies.

Predictive analysis helps one to understand and answer questions of what might occur in the future. It takes advantage of historical data which will give an idea of what the future trend might be and the chances of recurrence. The

tools used in predictive analysis provide vital insights on future trends, and they are mostly statistical and machine learning techniques like regression modeling.

Prescriptive analysis helps us to know what needs to be done. Using the findings from this analysis, decisions can be driven from data. This enables organization to make sound decisions in the face of uncertainty (Brock and Symaco et al., 2011). Machine learning skills are able to get needed information from large data sets, and thus it is used. By the analysis of historical data, unexpected outcomes can be estimated and approximated.

Combining these data analysis techniques enables businesses to come up with effective and efficient decisions which will optimize the operations of the business. The importance of data analysis is that it can help optimize operations by analyzing large data sets enabling it to be viable in the current competitive market. The financial sector is among the markets that took advantage of this. They are able to predict a market trend which enables them to make sound decisions in trade. For example, credit risk has been mitigated through the analysis of different data of clients and determining their creditworthiness. Fraud in financial institutions has also been reduced significantly through data analysis. Apart from profit maximization, data analysis has helped in other sectors. Vital information regarding health like the inflow of patients, proper record keeping, and the development of new drugs in the pharmaceutical industry, crime prevention, and environmental care has been analyzed and helped in these sectors. Data analysis on statistics has helped in research and development. The internet of things (IoT) is a field that is used alongside machine learning. These devices provide a great opportunity for data analytics. IoT devices often contain many sensors that collect meaningful data points for their operation. Devices like the Nest thermostat track movement and temperature to regulate heating and cooling. Smart devices like this can use data to learn from and predict your behavior. This will provide advanced home automation that can adapt to the way you live.

6.3. DIGITAL EDUCATIONAL STRATEGY

Digital business strategy is the process of integrating technology in the business framework in order to create a differential that will give a business the competitive advantage it needs in the market. As stated, technology is the main focus, whether if it comes to creating a new product or reimagining the current procedures being applied. The strategy aims in giving a specific

trajectory to which the business will take in order to create a competitive advantage. Also, the strategy outlines the tactics that will be employed in the transition process. Services that were not present in the old model will be added to make the strategy successful. (Spolsky et al., 2012).

The combining of technology and business has infused the aspect of hardware and software. The way technology is being heavily involved in the business world; it will reach a point that business strategy will also be the same as the digital strategy but also now we should focus on business strategy to focus on efforts being made in digital initiatives. Digital strategy is met halfway as a concept and an actual thing. This because the digital strategy should be modeled in a way that the end goal becomes something concrete and feasible in the current world. For instance, if you want to monetize a program you created. First of all, you need to strategize how the program will be vital be the end-user and sell it to them. You may find out that the program can be sold to other companies, and you make more money. From this, you have changed the strategy, but your end goal is still the same. To make money. The guiding idea can be changed to your interests, but the solid strategies should remain intact in order to achieve the end goal.

6.3.1. Digital Strategy in the Context of Digital Transformation

Usually, people tend to confuse digital strategy and digital transformation. They are similar, but they have different meanings. When it comes to customer experience, procedures regarding operations, and business frameworks, digital transformation drives changes in these sectors. In order for business transformation to happen, the overall culture of the business needs to shift, and coordination among the departments should be paramount.

When we talk about business strategy, we focus on technology and less on culture. It is more relevant to shifts in organizational frameworks by adopting frameworks that give the company capabilities to become a digital business. Coming up with a business strategy is paramount to steer digital transformation as it helps to come up with proper implementation in a manner that is in synchronization with the business objective.

6.3.2. Digital Strategy versus IT Strategy

According to different sources, the digital strategy looks for ways of using technology to transform activities in organizations, whereas IT strategy aims at transforming technology solely disregarding the business aspect. The latter mainly focuses on what is the best technology to invest in, with business

being the point of reference. The former looks for services and activities that need to undergo a transformation in order to benefit the customer. This is done by combining technology and business strategies. Digital leaders have gotten a competitive advantage by employing these strategies in their businesses.

How to create a digital strategy? There are five questions a digital leader should ask when formulating a digital strategy:

- Does digital technology change the businesses you should be in?
- How could digital technology improve the way you add value to the businesses you are in?
- Could digital technology change your target customer?
- Does digital technology affect the value proposition to your target customer? and
- How can digital technology enhance the enterprise capabilities that differentiate you from your competition?

To some companies, such questions are pretty much obvious since they have already understood their market and the competition it entails.

6.3.3. Components Needed When Formulating a Digital Strategy

- ***Pick a Digital Leader*:** Picking a suitable leader is the most vital step when creating a digital strategy. The culture, priorities, and structure of the business will determine the type of leader that will be picked. If the chief executive officer or any other employed worker will get the role, his ambitions should coincide with the digital strategy goals.
- ***Attack versus Defend*:** It is important to outline the potential threats and opportunities in digital business. This is according to McKinsey and company. Once the threats and opportunities have been identified, they are then compared against their digital strategy purpose. This enables the organization to determine whether to use a proactive or a defensive move.
- ***Employ a Measured Approach*:** A business needs to access whether an employed strategy will complement the business or will develop the ongoing operations (Bray et al., 2014). Organizations tend to panic when they realize they are behind schedule when it comes to implementing technology in their

operations making them initiate projects that are not in the same trajectory as the digital strategy objectives. Therefore, accessing the situation will come in handy in order to help save on using resources and initiating projects that do not suit the business strategy.

- ***Future Proof*:** The aim of digital transformation is to create a solid foundation in business operations. This implies that the strategy should be designed in a way that will allow reinvention, when necessary, in order to enable the business to be at par with the fast-evolving digital world.

6.4. INNOVATIVE CULTURE AND LIFESTYLE

The Asian world follows rules in extreme measures. In order for a business to stay relevant in this fast-moving world, they need to develop a culture of being innovative. Innovation can be motivated by monitoring the trends in the market and adjusting your digital strategy accordingly. Many organizations claim they want to be innovative in their operations, but most do not know what it entails.

Innovation is critical, but every organization applies different forms of innovation depending on the nature of its business. Because of this, innovation is the marginal, incremental improvement, enhancement, and changes of a business strategy. When the marginal changes are done daily, weekly, monthly, and yearly, they build up to a significant change that brings about the needed adaptation to the business. When we discuss innovation in the business sector, the adaptation of technology will definitely play a significant part. When you mix technology and the marginal changes in the operations of a business gradually, the culture and lifestyle of innovation will be achieved. Once you find a digital leader who is aware of these and is passionate to implement this in the organization, sooner or later you will experience a significant transformation in the business.

6.4.1. Characteristics of an Innovative Culture

- ***Active Opportunity Management*:** New opportunities should always be actively pursued by identifying them, prioritizing/deprioritizing, and allocating the necessary resources to them. Opportunity management should be an ongoing procedure through conversations, conventions, and strategic meetings.

- ***Enough Funding of Ideas*:** New ideas cost money to be funded, and therefore, enough money should be set aside to help steer the idea to reality, or else it will die at its PowerPoint. At the beginning of the year, the funding should be already allocated and protected. This implies that the funds set aside do not have any sure idea to fund, and therefore a leap of faith is required.
- ***Leadership Role Modeling*:** Digital leaders should inspire possibility and need to have the required energy. They should be present at every meeting and should be the last to leave the meeting. He or she should be active and contribute ideas and perspectives. They should be receptive to new and fresh ideas and be wise enough to know how to incorporate a worthy idea into the digital strategy (Synott, 2017).
- ***Stretch Goals and a Higher Purpose*:** The digital strategy team has the task of brainstorming and thinking outside the box in order to think differently and bring about innovation. The ideas should be attainable but should have a certain level of difficulty, which leads to a challenge. The idea should be visionary as it should be long-term. Emotional attachment is also vital as it will give us the motivation to achieve it and satisfaction once achieved.
- ***External Stimulus*:** Through the partnership, new and fresh ideas can be obtained. This is called diversification. The knowledge gained is used to inspire and fuel new ideas.
- ***Controlled Madness*:** Anything is possible with the right high-powered creativity, smart analysis, and advanced technology. One should push their boundaries.
- ***Up-Down-Left-Right Collaboration*:** Working in small groups with different people fuels up the level of creativity. Hierarchy is set aside, and everyone involved is welcomed to air in their opinion. Diversity becomes an advantage in this situation.
- ***Stories Everywhere*:** During your social life or professional life, you might decide to ask someone about an activity they have recently participated in that was innovative. When such stories are told and retold, they end up being legends, and this gives others the motivation to something that will make them be a part of the narrative. Stories end up being a recognition.
- ***Humility*:** People should be willing to see loopholes in their innovation and be able to rectify them. Wins should be shared

and not grabbed. One needs to be humble enough to enable collaboration and togetherness. Humility also enhances the spark of innovation.

- ***Room for Crazies*:** One needs to be courageous enough to stand out from the crowd and be honest regarding what he feels. Team members should not judge fast and should be able to critic the ideas brought forward meticulously. In order for you to stretch the boundaries of ideas, one should be able to stretch the level of one's talent, and in such an environment, empathy becomes vital.

6.5. STAFF AND CUSTOMER ENGAGEMENT

Customer and staff management is used to measure how employees value their company and their stakeholders, which involves customers. It shows how the stakeholders value the company and how they play a part in ensuring that it is successful. In order to enhance customer satisfaction, employee engagement needs to be evaluated and analyzed. This is a metric that is vital in analyzing customer satisfaction. This is because if employees are satisfied and happy with their duties, it shows that customer satisfaction can be achieved as they will get proper services from the employees. If there is a high engagement of your employees to your business, they will show a higher commitment to the business leading to its overall success. Below are some of the benefits of employee engagement:

- ***Enhanced Corporate Alignment*:** A company's success is highly contributed with the level of engagement your employees are showing. The Temkin group did a study that proved that the more the employees are engaged with each other, the more they give insightful ideas that will lead to the success of the company. Even if they might not pitch in ideas, engaged customers are more likely to sit late and work on a project if need be. Such dedication will make companies successful, as they are able to beat deadlines and complete projects on time.
- ***Delightful Customer Experience*:** As earlier discussed, employee engagement can significantly improve customer satisfaction. This is because they are more dedicated to the products being made and the services being rendered to the customers. A study showed that 79% of companies that had advanced customer engagement had a better customer satisfaction rate than companies that did not.

Employee engagement makes employees happier, thus rendering the required services to customers (Silova et al., 2007).

- ***Enhanced Customer Relations*:** A customer experience that is consistent and delightful will gradually build rapport with customers, thus increasing loyalty. This is because customers see that the employees are trustworthy to the objectives and mission of the business, be it short-term or long term. Customers, in turn, will advocate to other potential clients about your business which eventually leads to its success. They provide testimonials through social media, which will reach a great crowd making your business marketable. The stories and experiences of customers are more trusted than the advertisements.
- ***Smooth Internal Partnership*:** Not only does employee and customer engagement lead to customer satisfaction but also better internal interactions. If employees from different departments have goals and objectives that have the same trajectory, they will easily and swiftly be achieved with the required effectiveness. Data silos significantly reduce and barriers experienced during task execution also decline. An example of this can be demonstrated when a seasonal department wants to partner with the marketing department. If both the departments have proper employee engagement, the customer engagement will also be proper, leading to increased sales thus increasing the success of the business. This is achievable because the sales department will be able to understand the problems faced by the advertising department in regard to the sales department and be able to work on it, thus eliminating barriers.

Some of the strategies a digital leader can use to improve their strategy in customer and employee engagement are:

- ***Employee Feedback Program*:** In order for employees to feel special and engaged, they have to feel like they are a part of the organization. The top department that is the management should be able to show their employees that they are highly valued in the input they give the company. An employee feedback program should be formulated in order to collect and value the opinions of employees. Surveys such as eNPS are able to collect intelligence regarding the qualitative and quantitative opinions of what the employees think about the business. The procedure will enable

to sort out feedback and give the appropriate response to the employees.

- ***Peer Recognition*:** Some employees in a company usually value the opinions of their peers rather than the opinions of their digital leaders, and because of this, a peer recognition program can be created in order for employees to reward each other for deeds accomplished. In some institutions, bonuses are given to employees who have achieved something remarkable. This program gives the company two merits by enhancing collaboration among employees and creating the culture of working hard and proper (Ryan et al., 2010).
- ***Brainstorming Sessions*:** Employees usually have a lot of insightful ideas that can help propel the business to greater heights. But most times you find that employees are shy to give put their opinions to the digital leaders. Because of this, creating a brainstorming session can help bring put these ideas that can help improve the company's operations. Brainstorming sessions need not be complicated. They can be help quarterly where employees are given an opportunity to air out their ideas and opinions. This enables employees to give out ideas that they are passionate about and lead to collaboration.
- ***Company Teams and Team Awards*:** It does not matter the type of industry you are in; every company has employees who would love to get awards every time they have accomplished something great. This creates competition. Friendly competition enables employees to be more meticulous and quicker in their operations in order to meet their deadlines quicker. This is due to the motivation created when they know there is a reward waiting for them when something is accomplished. Equity is also vital when dishing out awards. This is because employees have different strengths and weaknesses, and it is important to figure them out. Unbiasedness should be practiced in order to give employees equal opportunities at their level of expertise.
- ***Team Contests and Competition*:** Another great technique of making employees engaged in setting up competitions that are achievable. Set objectives that need to be achieved and give rewards to winners. There are organizations where digital leaders set up competitions whereby, they check who has the highest NPS

weekly. Once the results have been tallied, the winner is given rewards like free tickets to their favorite game or a free vacation. This help organization to achieve their business goals and at the same time motivate their employees to put in work.

- ***Volunteer Training*:** There was an interview held where a CEO was emphasizing the importance of skills play in career development. Rather than earning money, developing skills is more important. This is because of the level of expertise and experience they would have gotten over time which in turn makes them happier as they are able to achieve their aspirations. Volunteer training sessions are a good initiative to help employees to be empowered. One-hour sessions can be organized so that employees are trained on matters that do not necessarily touch on their roles in the company but general issues such as professionalism, communication skills, and leadership.
- ***Guest Speakers*:** In some situations, employees can get motivation and morale from external sources; therefore, you need to bring someone who is emulated and adored by the employees to give them a word of advice. As a digital leader, you give out a topic that you want the employees to be advised on so that they can get an in-depth understanding of it. This provides a pathway that employees should follow in order to achieve their professional success.
- ***Corporate Culture Committee*:** The programs mentioned above will help enhance employee engagement, but in order to create a long-term engagement, one needs to heavily invest in their corporate culture. Passion and hardworking should be the greatest motivating factor and new employees need to also be told about the goals (Rose, 2009). A corporate culture Committee is a great starting point to enable such. In the Committee, the digital leader needs to appoint their best employees in order for them can be able to identify any hindrances they are facing. This will make them liaisons between the top department and the rest of the employees in the event that internal changes are in action.

6.6. CHARACTERISTICS OF GOOD EDUCATIONAL SYSTEM

In order to create a proper digital environment for the business, digital leaders should also transform themselves. They more often than not tend

to create a digital strategy that will bring about digital transformation and hastening in terms of the outcome of businesses, technology, procedural shifts, and their impact on people. With such transformation, usually, there is a great disruption in the leadership structure which is often not realized by many of them. This can either affect the business positively or negatively, leading to its success or demise.

Digital leaders who have had a successful run certain trait. Kasey Panetta, who is a senior content marketing manager at Gartner, has a sit down with other professionals to discuss digital leaders and noticeable characteristics they possess that steers their organizations to success. They discussed seven key characteristics that digital leaders have. They also discussed why it is vital for digital leaders to be extremely curious and inquisitive about new ideas, comprehend the difference between creativity and innovation, and not consider digital to be the end result. Below are the six characteristics that they discussed:

- ***Digital Leaders Pace the Trait of Being Neophiliacs*****:** A neophiliac is a person who has a personality trait of having an affinity to wanting to know and realize new things. The person has a strong attraction to novelty. Neophiliacs have the following characteristics:

i. They have the strength to adapt and strategize quickly to extreme shifts in situations;

ii. They hate activities that involve a routine;

iii. They have a strong urge to experience novelty;

iv. They have a strong urge to create their own novelty.

Their intellectual abhorrence of tradition and repetition usually bemoans a deeper emotional need for constant novelty and change. Neophiles are ever ready to know and look into new ventures. They are more susceptible to exploring and embracing new opportunities in the market. Neophiles are also very curious about fresh ideas when presented to them. This trait is very vital in the current world because technology is rapidly growing and changing and this means obsolescence is inevitable in the market. The rate at which information technology changes needs a digital leader who is a neophile so that he or she can be at par with the rapidly changing trends.

In our current world, COVID-19 has brought about massive changes in the company's business operations. Organizations are now shifting from the recovery phase to the renewal phase, and organizations are now looking for

how they will be able to capitalize from the changes that were obviously inevitable (Robertson, 2008). A survey conducted by the Gartner board of directors shows that seven out of 10 companies have initiated ideas that touch on digital business initiatives. All these have been brought about by the wrath brought by the coronavirus, which is a risk that businesses all over the world had not anticipated.

A frequently asked question that companies have to answer is why is the digitization strategy different after the pandemic than it was before, and the best answer to this is the pace of adoption. Coronavirus has a high volatility in that new strains are coming up and that means cases of resurgence are inevitable. The strategy of being digital is still underway, but the issue at hand is the rate at which organizations will adapt to the new environment. Data needs to be analyzed so as to get future trends, matters regarding psychology need to also be looked into like how are employees and customers are going to get through this, the organization itself needs to know if their employees are well equipped with the required skills and the governance of the organization.

Digital educational leaders have the responsibility of being able to adopt the digital strategy with the current situation at hand (COVID-19). Analyzed and informed decisions need to be made as they focus on automation, real-time risk management, mitigation of any lingering risks, a value delivery that needs to be continuous, and, finally, agile making of strategy. Digital leaders need to bring up disruption in the normal business framework. The acceleration of the digitization process Is in the search of new solutions in the face of broken assumptions. Digital leaders not only invent but also replicate-with such a characteristic, digital leaders need to tap into their innovative nature, but also at the same time, they need to copy other ideas from well-developed strategies that have a good success rate. Most times digital leaders are very careful in adapting to new ideas and strategies. This is motivated by wanting to be better than any other digital leader.

Despite that, digital leaders are also ready to copy ideas because it not always about invention. Digital leaders have a clear outline of what they need to invent and what they need to copy. Take, for example, apple was not the inventors of music player, but instead, they combined music player, a product with other ideas that captured the attention of customers with the assistance of other services which led to the rise of the iPod. A brilliant digital leader should be able to know his strengths and use them to invent something amazing and when to replicate and good idea plus combining it with other strategies to create something feasible and of greater value. It is

high time for leaders to embrace the digitization of companies by combining digital strategy and business strategy.

- ***Digital Educational Leaders Eschew the Boundaries of Industries*:** A digital leader should be able to put the business on a pedestal and invest in markets that seem more of a threat. Who would have thought that Google might offer an automobile? Or that Alibaba's Ant Financial would become a banking heavyweight? A potentially overlooked threat could be an organization in another industry, or a smaller company that might cannibalize your business subtly and slowly (Permani, 2009). Digital educational leaders are different in their ability to see the nonobvious threats. Practice "white space thinking," the ability to see what is missing, especially the spaces between industries.
- ***A Digital Educational Leader Should Appreciate That the Process of Innovation on More Than Just Creativity:*** conventional leaders most times tend to assume that creativity and innovation are the same thing, but that is not the case. Creativity in business is a way of thinking that has the strength to be able to influence, stretch, and motivate employees to think outside the box and come up with innovations and create opportunities from problems that have been analyzed. You often see companies coming up with very astonishing inventions that blow up your mind. The invention came from just an idea of a digital leader or his colleagues. Creativity is the main source of coming up with inventions and it fires up inspiration. Innovation is defined as the process of implementing ideas into creating a product or a service. The management is the focal point for determining the trajectory of the innovations and their realization. It can also be defined as a fresh or changed entity that creates and redistribute the value of a good or service. When thinking about innovation, you have to think about newness, improvement, and spread. Not all innovation requires a new invention.
- ***Digital Educational Leaders Should Select a Team with a High Adversity Quotient:*** During recent extreme obstacles and challenges, adversity quotient has proved to be more worthy than emotional quotient (EQ) and intelligence quotient (IQ). Adversity is a measure of how people are able to deal with and handle extreme challenges in his or her life. According to studies, adversity quotient help enhances the understandability

of mathematics. It is also commonly known as the science of resilience. EQ or emotional intelligence is the ability of people to comprehend, unlike, and manage their own emotions in a real-life setting. They positively use their emotions to positively manage and control stress, communicate effectively, and conflict resolution (Ng, 2012). A person with emotional intelligence is self-aware, empathetic, motivational, has social skills, and has self-regulation. A proper digital leader will measure the adversity quotient of their people. There are tools used to measure that and they include WOOP that is Wish, Outcome, Obstacles, and plan. This tool was created by a scientist known as Gabriele Oettingen. Wishing is having a strong desire for something or something to happen, which is probably hard to achieve. An outcome is a way something turned out, let us say after a project has been completed. Obstacles are factors that hinder the progress of operations. A plan is a well-elaborated proposal on how something should be done and achieved. This tool enables employees to reach their goals and objectives by including both positive and negative visualization. In order to build and nature resilience, one should avoid focusing solely on the positive, but they should also focus on the negative. For instance, think about the best-case scenario outcomes, but at the same time, you think about the obstacles you can face in the way to your success.

- ***Digital Educational Leaders Never Consider Digital to be the Outcome*:** Well-established digital leaders in organizations always even if all of their products and services have been digitized, still know that their outcome is not digitized. This is because digital is a means and not an end. This kind of thinking will transform operations as it changes how people work, like in remote work technology, or by changing the goods and services an organization deals with. Come up with a vision that focuses on outcomes which is way beyond digital. This is done by designing an environment where there is a common understanding of what function digital has. There is a rule of thumb that in the event someone talks about digital should add an adjective after the noun, making it "digital what?"
- ***Digital Educational Leaders Should Need Out on Technology and so Should Their People*:** In the world of technology and digital transformation, technical skills translate into business

results. Some of the big technological geniuses are highly technical. For instance, the chief executive officer of Instagram, Kevin Systrom, is a self-taught programer. The chief executive officer of Dropbox, Drew Houston, programmed a code when he was at a train station for his company. A proper business leader should be able to fully about the technology that was used in building the model of the business. Being a geek always seemed to be for less popular people who had a passion for other interests. But now businesses in the technological world are embracing the geekiest as they bring up a strategic advantage to the business.

Networking proficiency-a proper digital leader needs to know the power help of having a good network. This is because they need to spend time forging relationships, creating partnerships, and collecting important intelligence. Digital leaders always think outside the box, and rather than attending the same conventional meetings, you will find them attending the less popular meetings such as startup meetings, Internet summits, and business fairs. A company's ecosystem should be developed by building bonds on businesses and sharing information. These are vital things a digital leader needs to do in the current world's digital landscape. Studies show that about 85% of businesses build bonds in in-person business meetings and conferences you want to enhance your digital leadership skills, adopt two or three of the above characteristics and let them be your starting point. Do not just adopt all of them. With the implementation of the first 2, you will be able to have adaptive capabilities, and gradually you will have been able to adapt all the required characteristics (Nunan, 2005). As a digital leader, you will need to embrace and face risks that can bring up very brilliant innovations. No idea is too bad to be thought through, and no idea is too big not to be achieved. Create a culture that inspires your employees to embrace continuous innovation and creating new and disruptive ideas. Digital leaders always think outside the box and rather than attending the same conventional.

Chapter 7

Costs and Financing Education in Asia

CONTENTS

7.1. INTRODUCTION

Some of the factors affecting educational costs include school programs and the type of school. Under the type of school, it can either be a public or private school. Educational costs are usually lower in public schools compared to public schools. Educational costs vary according to the level of education. For instance, educational costs are higher at the tertiary level of education. Costs may vary at institutions of higher learning. This is why parents consider costs while selecting schools. Some educational costs include books, classrooms, tuition fees, student expenses, and transport. Some of these expenses can be directly or indirectly paid to the school. As the need for education is very important, different countries have made efforts to make education affordable for all.

7.2. EDUCATIONAL COST

Asia, like other countries, is trying to make needed efforts to make education more affordable. Asia has made significant improvements in its education. Education in Asia is rich as students get in-depth studies. This is because of the different educational outcomes. Educational policies have also contributed to high levels of educational standards allowing students to compete with those from other countries. Educational costs in Asia are influenced by their educational features and education policies used in schools. They are also influenced by how resources are used by the education sector. Expected educational costs are determined by educational planning (Nagata, 2007).

Educational planning is usually done by the ministry of education. This is in the case of public schools. In some instances, there are other boards of education involved in planning educational matters. Private schools have their own boards in charge of school planning. In most cases, those involved in educational planning are specialists in certain educational fields. Asia and other countries depend on educational planning to ensure proper educational provision. Figures derived during education planning are useful in helping the government develop an educational budget. The act of educational planning requires different skills. Examples of individuals involved in educational planning include economists, teachers, administrative officials, educationists, and individuals specialized in statistics. Educational planning is strongly related to educational costs.

Different concepts are used to create a better understanding of educational costs. Among them is economics. By applying economic, we

get to understand that those providing educational services have to deal with some parts of education cost. With education production, the service provider has to work towards achieving objectives under the educational sector. Educational producers have to deal with production costs, while those receiving the service have to deal with consumer costs. With production, they have to deal with the costs of purchasing books, building classrooms, and paying teachers, among others. Some consumer costs include the payment of school fees. Educational costs make different groups of individuals subject to it. For example, in public schools, the government is required to fund education. Parents and members of the community also have their own role to play in funding education. In countries like Nepal, there are organizations involved in funding education. Analysis done on educational costs is useful in understanding financial flow in learning institutions.

A major part of education costs is fees. There are different types of fees paid by parents from both private and public schools. In Asia, some countries have been able to provide free primary education. This exempts parents from paying tuition fees. However, those from the private sector have to pay numerous fees among them tuition fees, PTA fees, examination fees, uniforms, and book allowances. Education cost is relatively higher for parents in the private sector. To help cushion these parents, some Asian governments give some funds to private schools. This helps them cater for expenditures like rent and books among others (Mok, 2012). There is a challenge in some Asian countries where private tutoring is compulsory. It increases the burden of education costs on parents. In the education sector, there are different modes of charging fees. It can be done formally or informally. For example, tuition fees are charged formally. Uniform fees can be charged either formally or informally depending on the school. Some schools may require that the uniform be purchased at the school; hence it is charged directly, while other schools allow parents purchase uniforms from others institutions hence it is charged indirectly.

The amount of fees charged by different schools, more so in primary school has affected student enrollment. In Asia, student enrollment has increased a bit. The curve for public schools is quite flat. This is because most schools charge large sums of money in enrolling students. This discourages parents more so those living in poverty. This is why numerous organizations along with the World Bank are working towards the elimination of fees. This will be quite a challenge because most schools more so those in the private sector depend on fees to pay their teachers and also make necessary improvements. Asia's education system tends to work on an international basis. This allows

students from other countries to study in Asia. Internationally, a significant number of students opt to study in Asia. Fees charged in Asia are relatively lower compared to the amount charged in other countries. However, there has been an increase in fees. A global survey was done recently, and the results show that there has been a 7% increase in fees in most international Asian schools. The 7% increase is way beyond the global expectation. Fee increment has been attributed to increased standards of living globally. For instance, an international student in Asia is required to pay about 14,200 dollars per year as fees. This is relatively high when compared to the amount of fees paid by students in other continents.

Research shows that the rise in the cost of international education is due to increased demand. Parents from other continents are enrolling their children in international schools. Most of them want their students to be founded on international learning curriculums. This has become a trend among parents in the high and middle classes in countries that do not have a strong education system. Initially, wealthy parents would take their children to study in continents like North or South America (Mitchell and Desai, 2005). Over the years this has changed as parents are taking their children to other continents. In Asia, annual fees vary depending on the country. This is because the education system varies from country to country. The economy of the country will also determine the amount of fees charged. The following is a summary of international fees country-wise, starting with the most expensive.

High on the list is Switzerland. Due to its well-developed education system, international fees a very high. An international student is may be required to pay about 29,720 dollars per year. It is then followed by China. Education expenses are high for both local and international students. Ina year, an international student is required to pay 25,829 dollars. Among Asian countries, Hong Kong is quickly growing. Their economy is exhibiting an upward trend when compared to other countries globally. Their rich economy has caused a significant reduction in international fees. Initially, parents were required to be around 23,360 dollars per year. The latest report shows that international students pay around 18,465 dollars a year. However, the drop in international fees is experiencing some criticism. The argument being that fees are increasing by 6% every year, according to education consultants.

Research shows that newly established schools are charging more fees compared to initially established schools. Education consultants argue that some fees charged by these schools are unaffordable to students from

middle and lower classes. These schools hire the best teachers, facilitators, and principals. They are required to offer these individuals a good pay package compared to other schools. According to the survey, the number of international schools has increased in Asia. This is because the number of international schools that participated in the survey was twice that which participated in the survey the previous year. There was a challenge with making direct comparisons. Schools that participated in the survey the previous year did not participate in the survey. Initially, there were about 707 international schools in Asia. From the survey, the number has increased to 1576.

In the rank, international schools in countries like India, Laos, and Vanuatu charge the least with India charging 4,061 dollars per year. Laos charging 5,418 dollars per year. The lease is Vanuatu charging 2,507 dollars per year. Countries like Japan, Singapore, and Malaysia offer affordable education. Their education systems are good. Living standards in those areas are quite low. Affordability of education has contributed to high records in the number of international students. The countries also run numerous student exchange programs.

The cost of international education may reflect the cost of local education. As mentioned earlier, fees greatly influence student enrollment. In public schools, a certain amount of taxes is allocated to meeting education costs. Research shows that countries recording similar enrollment rates may be allocating a similar amount of funds to cater for primary education. A large percentage of funds directed towards education costs is used in paying teachers. In as much as teachers' salaries are relatively low, a large percentage of the education budget is allocated to teachers' salaries.

The government has to carry the burden of meeting education costs. They have to ensure the quality of education improves. Measures taken to improve education quality add to the cost of education. One of the measures taken includes hiring more teachers. This is to ensure that students in public schools do not suffer from understaffing. An adequate number of teachers also helps on ensuring a good student-teacher ratio. Some governments in Asia have adopted the use of assistant teachers who will be useful in reducing teacher workload, more so in school having a large number of students in classrooms. The government has to incur more costs in paying these teachers (Macpherson et al., 2014).

They are also working to ensure that all students get access to learning materials. Most public schools in Asia have limited access to learning

materials like books. Some Asia governments are working with publishing organizations so that books are delivered to public schools. These partnerships have encouraged donors and sponsors to participate in availing these resources. Donors have helped reduced costs incurred by education ministries. Student performance is a major issue. Increased quality of education means that students perform well. However, in some schools, there are students forced to repeat certain grades due to poor grades. This adds education cost to both the parent and the government as the student will spend an extra year in school. To eradicate this issue, the government is working towards ensuring repetition is reduced. This means that cases of children failing should be reduced as it brings about wastage. This is reduced by increasing the quality of education.

Purchase of desks, chairs, chalkboards, and whiteboards are included in education costs. Education ministries have to ensure there is a sufficient number of desks in each classroom. Most schools have been able to acquire these tools. However, funds are still being used to purchase other desks due to destruction. This is wastage to relevant stakeholders. This is why much emphasis has been placed on conducting maintenance practices. In as much as these practices are costly, they are much cheaper in the long run.

Training of teachers is also under education costs incurred by the government. Hiring trained teacher is crucial in ensuring improved quality of education. Asian governments have been tasked with the duty of ensuring its teacher are well trained. This has led to the establishment of teacher training programs as well as workshops. If the ministry of education was to train all Asian teachers, then it would double or triple education costs. To solve this issue, regulations have been implemented by the ministry of education requiring teachers to reach a certain level of education before they are employed. This saves the government teacher training costs. A recent addition to education costs is the integration of technology in learning. This requires a lot of funds to be used in purchasing some resources like computers. Teachers should be trained on technology, allowing them to acquire needed skills in teaching technology-related subjects.

7.3. FUNDING EDUCATION IN ASIA

Funding education refers to the act of availing all resources needed for educational activities to be done. This results in the term education finance. This refers to all financial resources used in education. Education finance houses numerous issues under education, such as allocation and utilization

of resources in ensuring that all children get access to quality education. Funding education requires numerous resources to be brought together (Marginson, 2011). Sources of education funds include government funds, the contribution from private organizations, contributions by community members, and funds from donors. Funds generated for education are dependent on the country. The government is the main source of education funds, followed by parent and community contributions. For instance, in Nepal, 49% of educational funds are obtained from households.

In Asia provision of basic education is perceived as a right for children. Most Asian governments have taken it upon themselves to ensure that all children get access to quality education. In countries like Nepal, basic education is compulsory for all children. There are laws requiring citizens to reach a certain level of education. This is an advancement from previous years. Plans to improve education for most continents, Asia included, began in the 19th century. This when most countries like Japan and China were working on improving education systems. This involved expansion of primary education. There was heavy dependence on public resources to improve education. Data from the 19th century show that there were numerous sources of funds. The largest source of funds was taxes. Knowledge of how the government was able to find education back then is necessary in understanding significant milestones achieved in the education sector.

In the 20th century, the expansion of basic education became crucial globally. There was a notable increase in the amount of money the government allocates to the education sector. In Asia, this was highly observed with most countries working to ensure that all children can access education. The main focus was to eradicate inequality in education. This resulted in the provision of free primary education. The effects include reduced inequality in education. Most children in Asian countries are able to access quality education without discrimination. There is an increase in student enrollment at the primary level. Research shows that some Asian countries like Singapore and Bangladesh enroll almost all children for primary school and a good number of students complete their primary education.

The government plays a significant role in funding education. Uses national revenue in funding education. Some Asian countries have a ministry of education. This ministry handles money set aside by the state to ensure learning takes place. This is why most researchers will argue that domestic spending is very important in education. Domestic funds play a central role in providing education. Aids from organizations help fill up areas domestic

funds could not fill. In 2012, Asia used about 11 billion dollars of domestic funds in funding basic education in low-income areas, 110 billion dollars in middle-income areas, while 263 billion dollars in high-income areas. There was a variation in the allocation of funds. For instance, in low-income areas, about 2.3 billion dollars was used in development. The ministry of education decides how resources will be allocated and used.

There is a variation in how funds are used in developed and developing countries of Asia. This is because there is a difference in the amount of revenue generated by both countries. This affects domestic spending in developed and developing countries. Statistics show that there is an increase in domestic spending on education in developing countries. This is because most of these countries are making significant achievements in their economies (Maitra and Mukhopadhyay, 2012). Therefore, mobilization of resources has improved, allowing more resources to be used in funding education. For example, some countries are allocating about 5% of their GDP for the entire education system while approximately 2% of the GDP is allocated for primary education.

However, there has been a reduction in the amount of resources going to education. This is because most developing countries in Asia have not made education a priority. Also, there is an issue with the allocation of resources. Low-income areas receive a lower percentage of the GDP compared to high-income areas hence domestic spending on education is lower in low-income areas. China, Japan, and Nepal have made education their topmost priority. They have realized the need for education in producing individuals fitted for the workplace. In such countries, there is proper allocation of resources to improve education. This is not the case in developing countries. This is why most of them lag behind.

According to research, there is an unequal distribution of resources in most developing countries, with most of these funds helping children from well-off families. In most of these countries, domestic spending on education has not resulted in adequate learning. Learning conditions are still not suitable for providing high-quality education. There is little investment in education programs in developing countries. There few projects implemented to help students acquire skills needed for the work environment. This contributes to the huge unemployment rates in these countries. Some of these countries have not been able to reform their education system.

China and Japan have been able to fully reform their education system enabling all students to acquire quality education without any inequality.

They have also properly budgeted their funds to allow free primary education allowing them to make primary education compulsory for all. This has helped them improve student enrollment. They record high numbers of girls admitted to schools. They have also used resources to ensure that their teachers are well trained and are paid properly. There is adequate provision of resources. Students can access a variety of learning materials. This is possible these countries want to ensure their education system is good.

Some people may argue that these countries have achieved a lot because their economies are stable. This is true to some extent. China had not placed much emphasis on improving its education system. As a matter of fact, they were very reluctant to make changes to their education system. After China experienced a great war, they realized the importance of education. This resulted in improved education systems.

Realizing issues with education, some Asian developing countries have put in place mechanisms to improve education. Most of these mechanisms have been implemented in countries like Nepal and Bangladesh. They have understood that once funds have been distributed by the government, they should be governed and monitored. This is to make sure that resources are properly utilized to achieve the required results. For most of these countries, there are strategies used in allocating these funds. These strategies follow certain principles. This way funds are allocated according to student needs. These strategies allow funds to be properly distributed among different educational priorities. A major priority is ensuring all public funds are properly used. In most cases, resources used in schools are limited. To ensure the government does not spend a lot of money purchasing the same resources every year, they have established mechanisms seeking to ensure all resources are well used.

It has also developed funding policies. These policies have been designed to utilize available resources efficiently to facilitate high-quality education as well as educational equity. One main aspect of funding policies is governing of school funds. Governing funds cover the generation and spending of funds. For public schools, the major source of funds is the government. Over the years, the government uses a significant percentage of its funds to facilitate public and private education. In some cases, there is international funding of the school (Burchinal et al., 2010). This is when the government makes use of money obtained from other countries or continents to fund education. International funding can also be through international agencies funding certain schools directly. As sources of funds are increasing, it is

important to have a good management strategy. There is also a need for economists and specialists who will help make proper decisions.

In some countries, schools have been involved in budgeting. When allocating funds, one factor is taken to consideration in student enrollment. This is important in countries offering free primary education. Information is collected at the beginning of the academic year. Information on the number of students newly enrolled and those initially present is collected and taken to the ministry of education. The government releases funds according to the number of students. This information is useful in determining the number of desks, books, and other learning materials the school should purchase. Relevant stakeholders conduct an assessment and the result are used in purchasing needed resources.

Enrolment rates are useful in making predictions on future financial demands. This is why most Asian governments are dependent on gross enrollment rates and net enrollment rates. In most countries, student enrollment the number of teachers to employ. Starting points of schools and student enrollment tendencies determine the amount of funds allocated to individual schools. The manner in which schools handle their students is also a matter of great importance. This entails the repetition of students in due to low grades. Participation patterns of schools also determine the amount of funds allocated to schools. For instance, schools recording low participation may require more funds. In countries recording high dropout rates require more funds in facilitating projects aimed at maintaining students in schools. Efforts made in improving education in those areas require numerous funds.

Based on participation, countries can be categorized into groups. The first group being countries recording high student enrollment rates. This is experienced in countries where almost all children are enrolled in schools. These countries record relatively low records of school dropouts. This is because they are able to retain more students in schools. These countries record high participation rates. Examples of countries in this category include Thailand, Singapore, Malaysia, Iran, and the Maldives. These countries have recorded an increase in student enrollment even among students in higher grades. However, enrollment patterns vary from country to country. For instance, the enrollment curve of Maldives is abnormal in that from grade one to seven, and the enrollment curve is slowly increasing. From grade seven to nine, the curve drastically rises, and afterward, there is a drastic drop. The second group defines countries recording lower enrollment rates compare to those from group one. Student enrollment is high among

children of age 3 to 6. This means that from grade one to eight, student enrollment is increasing. From grade nine, student enrollment reduces. Countries under this category include Bhutan, Indonesia, the Philippines, and India. A graphical representation of student enrollment would show a shallow curve gradually decreasing. Curves may be different depending on the country. In this group, dropout rates are higher compared to those from group 1. The participation rate is therefore lower compared to those in group 1.

In group three, these countries record high numbers of student enrollment at the start. As the learning process continues, these numbers decrease. Dropout rates are relatively high in these countries. In these countries, over-aged children may be enrolled in grade 1. Representation enrollment rates would take the form of a mildly convex curve. Examples of countries in this group include Nepal, Bangladesh, Lao PDR, Myanmar, and Timor-Leste. The final group comprises countries whose student enrollment rate is the lowest of all groups. Dropout rates are very high compared to others, while general participation is very low. This group is composed of two countries, namely Afghanistan and Pakistan. A graphical representation would show a curve exhibiting a fair linear decline.

The graphs are useful in understanding how these countries prioritize education. For instance, countries in group 1 are more likely to allocate more funds to improve the quality of education. They will also work towards expanding primary education due to student enrollment. For those in group two, funds will be used in improving learning in higher levels of learning and improve the quality of education at the primary level. For those in groups 3 and 4, much work is needed to be done to improve the provision of basic education. For these countries, they need to work ensuring children complete basic education. Based on this information, it is easy to predict future financial demand. Certain algorithms are used to predict financial demands (Martin and Chu, 2015).

After analyzing this information, one understands that funding education in Asia can lead to significant development. Governments should ensure a balance is achieved in terms of generating domestic funds and achieving the required results. For this to be achieved, there is a need for proper decisions to be made to allow proper allocation of resources.

Apart from improving education quality, the government has to deal with paying teachers. Teachers' salaries for a major part of educational costs. When creating education budgets, most funds are used in paying

teachers. Employing learned teachers plays a major part in reforming the education system. They are also working to generate numerous projects to help students acquire skills needed in the workforce. All this requires extra funds. This is why Asian society has worked with other countries and organizations, resulting in numerous partnerships. One major partnership is with The Finance Project. This partnership is used on a global scale allowing relevant stakeholders to identify and acquire much-needed funds. This partnership has created a guide for its members. The guide outlines a framework allowing countries to acquire, manage, and utilize resources. It enables countries to develop strategies allowing them to handle multiple sources of funds. It equips them with knowledge on how to properly manage both federal and state funds. It also equips them with knowledge on how to use acquired funds to meet the educational goal. They learn that certain funds are used in facilitating education on a global scale. These funds include grants. The guide was created to help several states overcome certain challenges related to the expansion of schools. By so doing learning institutions can work towards equipping students with knowledge and skills needed in the workforce.

In light of the COVID-19 pandemic, the education system has been greatly affected. Learning can no longer be done on a face-to-face basis. This has resulted in schools using technology to facilitate learning. The pandemic has resulted in about 1.5 billion students forced out of school. Education ministries had to quickly respond to the situation preventing major disruptions. Some measures taken by the government include online learning and the use of media houses in facilitating learning. Education companies have also been involved in the generation of mobile applications allowing students to continue their education. However, there is a significant number of students unable to access such technology. Most programs integrated to facilitate remote learning is inaccessible to them.

For children to participate in remote learning, there is a need for devices such as televisions, phones, and tablets. This poses a challenge to children from poor backgrounds as their parents or guardians may not be in possession of such devices. Some of them lack the ability to access these devices. If the device is available, most parents tend to limit the exposure time to these devices. In cases where there are several children, they may have to share these devices. Statistics show that about 28% of Asian children are unable to access these devices. The same case is exhibited by teachers (Lim, 2016). Teachers from low-income areas may not be in possession of these devices; therefore, they are unable to conduct teaching. This poses a great challenge

to the education sector because the government can do so little to help solve this problem.

The government can help by investing in technology. They can help purchase computers for teachers in low-income areas. They can also implement strategies aimed at ensuring all learners have access to technological tools. For instance, in some Asian countries, students are given tablets to be used in learning. These tablets are fitted with a variety of learning materials. Government can also work with technological organizations in producing other learning devices. As the challenge may be finding resources to fund such projects, the government may utilize international funds. It can also budget its local revenue such that domestic spending is able to cater to technological integration. Proper allocation of resources is required in ensuring the education system attains its technological goals.

7.4. DONORS

In most countries, donors have been actively involved. Some of them fund education indirectly by working with education ministries, while others donate funds to schools directly. Some organizations have worked with the government to establish schools and purchase learning materials. Initially, most donors were enthusiastic about funding education in countries. This is demonstrated in the increase in the amount of money donated to Asia to improve the quality of education. Initially, Asian countries would receive about 7 billion dollars as educational aid. Over the years, this amount has increased to about 14 billion dollars.

Some of the organizations involved in educational donations in Asia are as follows: the Air Force Corporate foundation, Allen Foundation, American Association of Equine Practitioners Foundation, Arab Human Rights Fund, AusAID, Australian Development Agency, Better World Books Literacy and Education in Action program, Boeing Company Corporate Giving Program, Brush Foundation, Broadcom Foundation, Coca-Cola Foundation, Commonwealth Foundation, Darwin Initiative, Eaton Charitable Fund, Dubai Cares, Fledging Fund, Engineering Foundation, Dubai Cares, Dow Chemical Company Foundation, Global Fund for Women, Ford Foundation, Irish Aid, Gilead Corporate Funds and Irish Aid among others. These organizations are known for their donations in the education sector.

Some of these organizations have worked with the ministry of education through educational programs and projects. For example, The Sponsor

foundation has been involved in a grant program seeking to improve education through facilitating research. The Wipro Foundation Program is working with the Indian government to improve India's education quality. The same foundation is also involved in supporting underprivileged children by ensuring that they learn like other students.

In as much as numerous organizations are involved in funding education, recent data shows that there is a decline in financial aid given to Asian countries. For instance, Asia has recorded a 9% decrease in financial aid meant for education. The reduction affects primary education. Financial experts attributed this decline to the growth exhibited in some countries. Some Asian countries like China have attained high education quality. Most bilateral donors have reduced the amount of funds they are giving to other countries. In some countries, these funds have been withdrawn due to large financial needs (Lee et al., 2013).

Also, most Asian countries have developed to the extent of providing free primary education. This explains the amount of financial aid allocated to primary education. Most donors are focused on helping students in higher levels of education. This is exhibited in most multilateral donors. They have directed their funds to improve education in high schools and tertiary institutions. Records show a decline in the amount of aid obtained from multilateral donors in improving primary education. The shift by donors is not far-fetched. Institutions of higher learning need more funds compared to primary schools.

Most Asian countries are dealing with lower female enrollment compared to males. This is because some parents do not value female education. Girls from low-income families have a slim possibility of being enrolled in primary school. This trend is highly expected in countries that do not offer free primary education. Therefore, organizations concerned with educating females tend to donate most of their funds to girl schools. These organizations may donate books, funds, or sanitary equipment to ensure female students learn well. In some cases, these organizations pay fees for female students from poor backgrounds. In Asia, numerous organizations involved with women empowerment are actively involved in funding education in girl schools. These organizations may be local or international. A good example is the Wipro Foundation Program. Among its objectives is to ensure that more female students are enrolled in school.

There also some organizations involved with children living with disabilities. Most Asian countries are working towards establishing schools

for children with disabilities. Progress made is not really significant. Organizations that advocate for the rights of people with disabilities have been actively involved in ensuring that these students can learn like other students. Most of these organizations donate funds to special schools allowing them to purchase all necessary equipment. Some of these organizations have been involved in establishing schools for these individuals. Some organizations fund the education of some students by paying their fees and covering all their education costs.

7.5. PARENTS

With the provision of funds, parents are second to the government. This is because parents and guardians pay students fees, allowing them to access education. Parents play a major role in meeting education costs. They pay fees that are used in paying teachers. This applies to the private sector. They are also involved in purchasing learning resources such as books. In some Asian countries, parents have been actively involved in building schools. Schools may ask parents to help them expand the school. Parents make their contributions and build classrooms. This is only applicable in private schools. Private schools can also utilize PTAs in funding school projects. In private schools, parents are the major source of funds. This is because most private schools run on fees paid by the student. Their fees are used in paying teachers and purchasing school equipment. This is why fees paid by those in the private sector may be higher compared to those in public schools (Kosonen, 2005).

In public schools, the government caters to student fees. Parents may be required to supplement funds by purchasing food or uniforms for their children. In most countries, there are laws prohibiting Schools from demanding money from parents. If parents are to be involved in school projects, they may do it voluntarily. The parent should not be forced not the child denied education because of a school project. If parents are to be involved, schools may conduct activities like fundraisers to generate the money needed for school projects. Usually, parents are involved when the school wants to purchase a bus, books, and other secondary resources. In most cases, wealthy parents usually donate a lot of money to help public schools.

Usually, when certain districts do not have sufficient funds to run the school, parents from wealthy family's chip in by making donations or holding fundraisers to help the schools. Most school fundraisers are hosted by schools

with the help of parents. Numerous activities are done, and parents from other schools are invited to participate. Parents can be involved in funding extracurricular activities in schools such as dancing and clubs. Some parents are owners of organizations; they can involve their organizations in funding school projects. A good example of a project is purchasing technological tools, such as computers. Usually, the school notifies parents of their agenda. The school then provides a date for the fundraiser, and parents are invited to take part in the fundraiser.

7.6. THE COMMUNITY

Community members can be involved in funding education. Community involvement started way back in Asia more so in low-income areas. Community members were required to come together and set up schools. They were required to identify teachers. This is why the most teacher in South Asia were from a certain community. Community members were also required to pay teachers after they have rendered their services. Over the years, funds obtained from community members may not be consistent as before. This is because the government took charge of the education system fund its activities. However, community members can still be involved in funding education. They can be involved in the establishment of a new School. This is done under the mobilization of a certain leader. For instance, the head of the districts can call upon community members to take part in fundraisers. Individual schools can also reach out to the community to help them raise funds. Well-wishers can also volunteer to help the school.

Local organizations can also help fund education. For instance, local banks and agencies can be involved in funding education. A good example is the Asian Development Bank (ADB). The bank has been involved in many educational projects. Schools can also conduct some activities to help them generate funds. Some schools rent their fields to organizations for certain activities, and they make money from it.

Chapter 8

Challenges in Education in Asian Countries

CONTENTS

8.1. INTRODUCTION

When dealing with the education of children around the world, Asia proves to be one of the countries with a global success story. In general, research shows that 9 out of 10 children in the region are enrolled in primary school. This is actually a very good number though the target by 2030 is that 10 out of 10 children should be enrolled in school. The progress of this country is nothing short of remarkable given the fact that this continent had two-thirds of the children not going to school in the 1970s (Figure 8.1) (Butler, 2015).

Figure 8.1. *Children in a classroom. Children in Asian countries are getting a chance in education, which is an improvement for the region for past years.*

Source: https://www.voanews.com/student-union/schools-some-asian-countries-reopen-others-wait.

Research actually shows that over the past 10 years, the most regions in this continent have gone forth to increase the number of schools and further providing subsidies for those children from low-income earning families. Given this remarkable achievement by the Asian countries, there are still shortcomings associated with them, especially in education and human resource. This is one reality that most of the Asian countries are curbed with and further led to the dampening of the region's economic aspirations. The economy is hurt by such a situation due to the fact that it is a major concern for the various governments, the students and parents, the employers, and the society at large.

8.2. CHALLENGE ON BASIC AND SECONDARY EDUCATION

It is with no doubt that the number of students that are enrolled in primary school in the Asian region is astonishing. In fact, statistics show that 90% is the percentage of primary enrollment in the region. There are however a good number of shortcomings that result from such a number. First, the quality of education may prove to below. When the number of students in a particular class is high, it proves to be quite hard for the teachers to take their time to concentrate on a particular individual. If this is the case, it will be difficult to notice when there is a student that does not understand a concept taught by the teacher. Dealing with a large class may be very limiting to both the teacher and the students. Ideally, research shows that effective teaching and quality learning is highly constrained by a large number of students. The other issue is the perception that students have with regards to classes with a large number of students, which is in most cases negative.

All this affects the levels of knowledge gained from the classroom.it tends to have negative impacts on the academic success of the students. This is attributed to the fact that the children tend to encounter a number of distractions, especially from other students, and further their inability to have an intimate relationship with their teachers. Due to low levels of academic success, there are normally high retention rates of the students (Knight, 2012). It is with no doubt that when a student has limited knowledge about the class they are in; they cannot be allowed to proceed to the next class. If the retention becomes repetitive, the child ends up dropping out of school, which shows that they have wasted their years while in school. In Asia, dropouts' rates have become a great source of concern. The weakness in the basic education is becoming very persistent and thus slowed down the progression of students to higher levels of education.

Statistics show that the enrollment rates in the secondary schools are far much lower as compared to enrollment in the basic levels. The advice to these regions is that school construction is required. This advice goes mostly to those regions that are experiencing high population growth rate in order to be able to accolade the young children that are transitioning from early childhood education. Furthermore, it is not only the primary schools that need to be constructed but also the secondary schools in order to accommodate those transitioning from basic education. Other strategies can be adopted in order to expand the secondary schools. Some of those strategies include comprehensive policy, financing, and various structural reforms. Apart

from these strategies, the governments need to work towards improving the number of quality teachers (King and Guerra, 2005). This can be done by providing teacher training and further support the education of those interested in the same. The stakeholders that are involved in the education system should also come together to work on a uniform curriculum and the ways in which they are going to deliver the education services. Secondary education is an important part and for the reason that a good number of Asian children do not get to this level is considered to be unfortunate. This is due to the fact that a lot of opportunities, especially scholarships are offered to students that have their secondary certificates. As such, Asian students are missing out on this incredible chance.

8.3. CHALLENGES FACING TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING INSTITUTES

Most countries in the Asian region are in the development stages in both their respective educational systems and their socio-economic systems. Taking for instance, some of the countries such as Korea, Singapore, and Japan which are technically and technologically more advanced than the other Asian countries. They have TVET systems, which are more developed also. Around the world, there has been changes, especially in the trade and commerce sector. Consequently, there has been advancement in the technology sector, especially in information and communication technology (ICT) and the advancement in the knowledge economy. Due to these changes, there are challenges that have been established involving TVETs all around the world. In particular, countries in the Asian region have been highly affected by these changes, which makes them stand at a developmental crossroad. In order for a country to ensure that they are sustainably developed, most of the countries are confronted with the need to balance the goal of becoming globally competitive while ensuring that there is growth within their economy. Ideally, to achieve growth, there needs to be inclusivity, which means that there needs to be equality among individuals. There are those Asian countries that have a large area and high population that is still growing (Kirkpatrick and Liddicoat, 2017). Most of these countries are either separated by steep mountain ranges while others are islands thus separated by large water body masses. These features that bring about separation between these countries are somewhat problematic since it makes communication and networking very difficult. It is with no doubt

that when it comes to education systems, there are those that are thriving, as they are known for their high levels of literacy and a large number of children in school. On the other hand. There are those countries that are still struggling when it comes to providing education, even the most basic levels of education. There are those countries that are still facing the effects of war and thus are forced to be able to live and operate in an area with poor infrastructure and with high political disturbances.

All these countries, the ones that are better off and those that are facing a great number of problems have something in common. It is the fact that they are participating countries in the Colombo Plan region. Under this umbrella, these countries are able to understand that technician education and training play an important role in promoting or rather supporting a country's effort in wanting to ensure that there is improved quality of life for its people. Under the TVET field is where the Colombo Plan Staff College for Technician Education (CPSC) operates and performs its duties (Figure 8.2).

Figure 8.2. *The Colombo Plan Staff College logo. A body that is working hard to improve TVET institutions all around the world.*

Source: www.cpsctech.org.

This body works very hard in the interest of the member states to ensure that it arrives at strategies that can be able to address the needs of each member. One-fifth of the world's countries are in this body. The great factor about this body is that it overlooks the developmental status of a country, as it wants to play a role in ensuring that all children around the world have a shot in this very challenging environment.

It is with no doubt that in most countries, especially in the Asian regions, there are concrete measures that have been put in place to rationalize their TVET systems. This is because they need to ensure that there are no cases frittering away or rather misusing the already unlimited resources available to the institutions and agencies that are at the moment involved in TVET program implementation. As most countries are realizing, there is a need to

involve the important individuals that are involved in the TVET program. These individuals can help provide a way forward on the strategies that can be helpful for these institutions, especially when it comes to the courses being taught and the programs there. Such targeted clients include the parents who normally lead the way on how individuals regard TVET institutions and the youths and adults that are involved in the program. These individuals are normally students or adults who are in need of retraining. Other stakeholders that are involved in the TVET system include the implementers who are at the forefront of ensuring the success of these programs and the policymakers who are in charge of coming up with choices that may be helpful to the society (Kapoor, 2009). Most of the individuals who choose to go to the TVET institutions consider them as the second poor choices, especially when they have not been able to acquire grades that can get them to institutions of higher learning such as colleges and universities. Singapore has, however, addressed this issue in their polytechnic system in a very interesting manner. What is being jotted down as the best practices is presented as an overview of how the TVET programs and systems are adapted in a society with a varied number of limitations, social-cultural barriers, and economic constraints.

There are, however, a number of problems associated with the TVET programs in the Asian countries, including those countries that have a higher level of maturity in terms of their development. One of the most common concern is in the development of curriculum and training programs that will respond to the knowledge and skills that one needs in an industry. This is becoming a great challenge for these institutions. Many researchers have been able to tell of the rift that exists between the knowledge and skills that are required in an industry and those that are acquired by the students that are in the training programs. In order to ensure that this rift has been closed, there needs to be a partnership between the public and the private sector. The suggestion brought to the table by most countries is to participate in the provision of training programs that will produce the kind of individuals that are equipped with the desired knowledge and skills to teach the students in these institutions.

It has also come to the attention that it is very important to recognize these teachers by providing them with not only training but also credentials that will allow them to be recognized all over the world. It is also important for the stakeholders involved in the success of the TVET institutions to provide the teachers with the new learning materials in order to be able to keep up with the developments that are moving with the current trends in the international arena. In most countries, there is the recognition that it is

important to train individuals that are considered to be independent thinkers and can be able to function well in the constantly changing environment. This means that they strive on trying to improve the skills of the individuals. Most researchers are advising that these technical institutions be able to work with various organizations and agencies so as to be able to understand the new developments around the world and the new technologies that need to be mastered (Jensen, 2012). By doing this, it will enable the students to have the ground floor on the current technologies and further help them in the predictions of new technologies by understanding the trends. In order to address the issue that can be classified as a deficiency, Malaysia has a new program. Individuals have been able to see the importance of having qualifications that are widely accepted which help the workers in a particular country have internationally acceptable credentials, which may be able to cross borders to acquire work. Furthermore, this program has allowed the individuals involved in the TVET education system to continue with higher education if they wish to do so through a ladderized system of education (Figure 8.3).

Figure 8.3. *Students in TVET institutions. Programs have been put into play to ensure that the students in such institutions have the ability to continue with higher education if they wish. This includes enrolling to colleges or universities.*

Source: Asian Development Bank.

Some countries have recognized TVET as an effective platform for training individuals in order for them to acquire skills. Furthermore, these countries have to an extent of having TVET as an inculcation when dealing with life-long learning for their population in the 21st century. Ideally, these countries can be given thumbs up given the fact that they have

certainly been able to make progress by making good use of TVET in their education systems. In most countries, TVETs are more of a teaching by use of practical rather than theoretical teaching. This education strategy has been able to accommodate a good number of individuals, especially those who face difficulties when it comes to understanding theories. It is not that they do not completely use theories, but the majority of the teachings are practically done. A number of countries are learning from the experiences of other countries by setting up structures that are for the purpose of TVET institutions. Furthermore, they have gone forth to establish a curriculum, various policy frameworks and providing orientation for the purpose of bringing about reforms within the country that are desirable and ensure the realization of national strategy.

It is with no doubt that there are no solutions that can be permanent in fixing the challenges facing the TVET system. These include the challenges with regard to the magnitude of resources available for the TVET, and how to change the mindset of individuals with regards to being enrolled in a TVET institution. The fact of the matter is that countries need to bring about drastic changes in their countries so as to ensure that TVET takes its rightful place in playing the role of driving a country towards a recognizable growth. It is with no doubt that the challenges experienced by the Asian countries, especially with regard to the TVET education program that led to them gaining attention by the CPSC body (Jacob and Lefgren, 2004). This body is further doing its best to intensify its efforts in order to build the Asian region in terms of building the knowledge and skills of individuals. It is doing this through technical and vocational education and training for the purpose of bringing about peace, harmony, and sustainable growth in the era in which knowledge is considered to be a very important factor.

8.4. CHALLENGES FACING THE EDUCATION SYSTEM IN COLLEGES

Higher education systems across Asia face several challenges, such as in maintain and enhancing the quality of education, especially in the periods of tough financial constraints. Improving the relevance of curriculum and instruction during these periods of rapid changes in the labor market, creating efficiency in the utilization of financial resources available to higher education and balancing the continued expansion of access to higher education with greater attention to equity and to the need to raise quality. These are among the many challenges faced by students, staff, and

administration in colleges, which hinder the attainment of objectives of the higher learning institutions in Asian countries.

A majority of the international students face difficulties in adjusting to new cultural environments in Asian countries different from those of domestic students. They struggle in adopting the new worldviews, cultural, linguistic background as well as the varying strategies for learning. They particularly vary widely in their academic ability, motivation, prior education experience and English language proficiency as compared to the local students. These international students in Asian countries face difficulties in writing during examinations period and in terms of speech as they express their ideas in class and in the various discussion groups, they are involved in while learning different subjects (Figure 8.4).

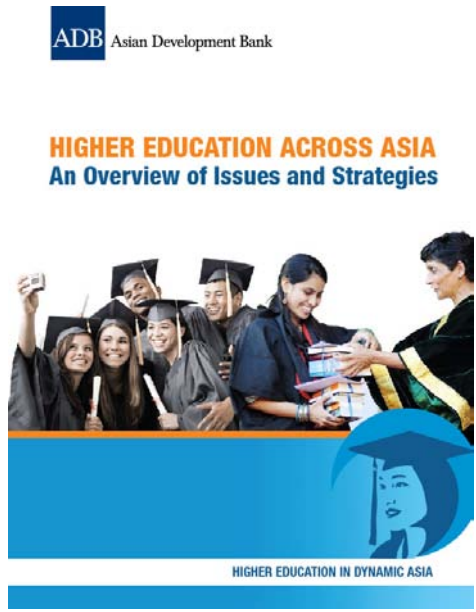

Figure 8.4. *An overview of challenges facing Asian higher education, inadequate funding, and fewer students enrolling every year to the universities, among other factors.*

Source: Asian Development Bank.

These experiences play a very significant role in the academic performance where they are influenced negatively. Further, these students strain in employing approaches for overcoming the cultural and linguistic

challenges, which are not always understood or valued by instructors, and their student peers. In most cases, western university instructors often categorize Asian students as either the brainy Asian or the rote learner. In addition, while Asian students tend to adopt spontaneous collaborative approaches in researching and writing assignments due to their Confucian cultural values that focus on group work, international students are often excluded as their ability to blend in is minimal. They are most times left out in effectively learning as the other students.

Generally, students face challenges in higher education when they are being prepared for fields in which there is no clear demand and when the skills and knowledge of graduates are not align well with the workplace needs of employers. This leads to low external efficiency. The current situation has led to the rising unemployment rates and employer dissatisfaction with newly hired graduates. Additionally, a paradox of higher education particularly evident across Asia is that, even at a time when countries are producing a record number of graduates, employers complain of a shortage of qualified workers, and graduate unemployment continues to creep higher (Huang, 2007). Evidently, there is growing concern among employers that graduates' knowledge and skills are not consistently aligned with labor market needs. Indeed, whether countries have too few or too many graduates depend on what kinds of graduates are being produced. This is likely to be reflected in the country's performance in terms of economic growth. the students who have invested a lot of time and money into their studies efforts are likely not to bear any fruits as they become redundant in the society. This leads to low motivation to those in school for performing better in their studies.

Inadequate funding and fewer students enrolling every year to the universities have raised a number of challenges. The university faces pressure to engage in research throughout Asia. Governments want the research to be conducted in promoting innovation, technical development, and productivity, which, in turn, will provide a return on their investment in higher education institutions. Additionally, governments seek the international prestige associated with world-class research institutions. Such hope is of some grounding, but is often overstated. As often a consequence, university-based research done in high income countries do contribute to economic development. However, in middle income and low-income countries, that is less often true due to the countries inability to implement the research findings and recommendations by researchers and authors. Moreover, the low quality of university-based research in these countries results in less impact. This raises a question about the opportunity cost of

channeling funds into university-based research rather than using those funds to raise instructional quality across the wider higher education system. Given that excellence in research is expensive and requires specialized talent and facilities, higher institutions in Asia are chronically experiencing financial, structural, and human resources shortages.

Most colleges have failed to reach the standards recognized by internationally recognized centers of research and excellence. The gains that most would have to make to achieve the level necessary for international recognition are formidable and unrealistic to the local universities. There are therefore no clear roles and balanced development of the overall higher education system within each country. Overall, governments want research; institutions push their faculty to carry them out and some academic staff offer up research products to achieve promotion in their career (Horie, 2014). Additionally, when governments allocate money for research, decisions are often made based on seniority rather than merit to universities. Similarly, a number of institutions sponsor internal journals to provide avenues for their staff to publish their research, often with little attention to the quality of what is published. This poses challenges in the field of research in the higher learning institutions in the Asian countries.

Many developing countries in the region have a shortage of qualified researchers, a reflection, in turn, of the modest number of graduate students studying science and technology Higher education across Asia. The situation has led to a lack of reliable information to the government and stakeholders in the ongoing challenges facing the countries. The lack of a vibrant and strong research culture in most universities is very prominent. Many academic staff have little intrinsic interest or motivation to do research, especially since most have not participated in doctoral education, which is the typical period of socialization to a research orientation. Other, on the other hand, lack adequate finances and support from their institutions in carrying out research. After all, research is impeded by the lack of adequate research infrastructure such as research facilities, laboratories, and libraries at many universities, while university-industry relationships that might support research collaborations are most of the time non-existent or basically weak (Figure 8.5).

Misalignments are caused when the secondary school curriculum of the Asian countries does not align with the entrance requirements of its colleges and universities. They fail to prepare students for the rigors of higher learning education. In fact, most students have a mind-set that at higher

learning education comes with more relaxing and few reading instances. Another evidence of misalignment is reflected in complaints of university instructional staff that incoming students are ill-prepared to handle the demands of university work and in the need for the transition programs, some universities have to provide to incoming students to help them develop missing knowledge and skills they will need for academic success at the university level. Misalignments can be traced to variations in secondary school conditions, teacher qualifications, student abilities, and student misperceptions about the requirements for university admission. Often the crux of the problem is the inadequate and, in some cases, rapidly decreasing student readiness for higher education due to low quality instruction at the secondary level (Ho, 2014). In other cases, students lack adequate college counseling at the secondary level because their secondary school teachers and counselors do not understand what postsecondary options are available for secondary school graduates such as vocational, technical, and university as well as they may not understand what is expected of university-bound students once they enter higher education.

Figure 8.5. *A school laboratory. Laboratories are basically important in colleges, especially when it comes to dealing with scientific courses. Most Asian colleges are short of the same, which is considered a great challenge for the higher education community.*

Source: https://www.istockphoto.com/photos/chinese-students-in-chemistry-lab-hong-kong-asia.

The gap between the expectations of schoolteachers and college professors can be significant contributors to the college student's performance. However, only a few parents, teachers, counselors, and school administrators have knowledge of university admissions requirements. Students are thus more likely to receive inaccurate information. This situation represents a waste to the national resources that are dedicated to these Asian students in their course of university education life, as they are most likely not going to be used optimally.

Lack of professional development is the underlying problem in most Asian higher learning institutions. In some cases, a central constraint on academic staff performance is not just lack of capability, but a work environment that fails to reward instructors for good work. Often this is due to lack of incentives or ineffective allocations of those incentives that are available. Study findings suggest that among the most important actions governments can take to improve education quality are improving faculty incentive systems, evaluation procedures, and conditions of employment. If academic staff members are to engage fully in work that best supports the mission and goals of the institution, they must believe that there are sufficient incentives and rewards to make it worthwhile to do the work. Closely related in importance to having attractive incentives are that the university should have a fair and transparent evaluation system for allocating those incentives. Fair, consistent, and transparent evaluation systems enable staff to understand the relationship between work performance and rewards. The lack of a fair evaluation system undermines quality and accountability. This poses a challenge to most Asian countries.

The rapid expansion of higher education in Asia has resulted in a great shortage of qualified academics, a development that seriously threatens quality. Instructional staff across, e.g., Southeast Asia vary widely in academic qualifications and often have limited or no access to professional development opportunities. While some are well qualified, the majority of academic staff has very modest credentials. Many are young and have poor preparation as teachers and/or little hands-on practical work experience. Some are limited by lack of an international language, a problem when university systems are seeking to prepare graduates to work effectively within internationally oriented work settings (Hayhoe and Li, 2008). If university staff is to engage in high quality teaching and research, they need opportunities to encounter new ideas, to learn new strategies for engaging students in the learning process, and to interact with colleagues

who offer different perspectives. They need to be challenged, stimulated, and encouraged. The opportunity for professional growth is an "essential element" in a supportive and productive academic environment.

Many colleges have not been able to recruit fully qualified instructional staff fast enough to keep up with burgeoning enrollments, and many are now experiencing a shortage of qualified instructors. Universities have responded in three ways: hiring their own graduates; seeking faculty members from overseas; and employing part-time academic staff, who may also work at other institutions. Each approach has advantages, but each has liabilities. A university hiring its own graduates' fosters "inbreeding." It limits the infusion of new ideas and creativity that often come by hiring instructors whose preparation and experience occurred elsewhere. In countries in which deference to seniors is deeply engrained in the culture, junior academics who studied under the senior staff are likely to hesitate to introduce alternative perspectives or to pursue new avenues of work. Hiring from overseas by the Asian universities poses a challenge, as it is expensive. Instructors who are hired part-time have conflicting demands on their time and attention and may do little to help build the university.

The shifting cost of management, administration in higher education instructions to students and their families have raised serious challenges. As students are expected to pay more for their higher education, those from poor backgrounds risks not going to school even though they might have the abilities of performing better at school. Many scholars are thus lost because the process of nurturing him or her is expensive to the student and to the parent as well. Alternatives implemented by the Asian governments are often student loans that are associated with very high rates of repayments with little grace periods. This adds burdens to the students and thus is more likely to drop off from school.

Lastly, these concerns affect the ability and capacity to manage the higher education system in Asian countries. Particularly the managerial and analytical capabilities of administrators, these institutions are at risk of collapsing. Their ability to assess needs and to design, analyze, manage, and evaluate education programs in solving these challenges is highly recommended. This will be coupled with the governments providing the necessary support for appropriate monitoring to bringing effective changes in Asian colleges.

8.5. PROBLEM OF EQUITY IN EDUCATION IN ASIAN COUNTRIES

There exist inequalities in the Asian regions not only between the rural and urban areas, the provinces within the countries, but also between the private and the public and the private education institutions. Furthermore, there exist disparities between the genders, the socio-economic conditions. All these inequalities bring about the disparities when it comes to delivering the quality of learning and the opportunities offered to individuals, especially when considering the access to ICT (Hawkins, 2012). Taking for instance in Indonesia, three exists educational disparities especially in geographical areas, the western and the eastern parts of Asia, the urban and the rural populations and for people in the country with different incomes and are of different genders. In Vietnam, the number of female enrollments is fewer as compared to the number of male enrollments. Those individuals that are highly affected are the ethnic minority schoolgirls who are disadvantaged when it comes to upper secondary education.

Looking at the percentage of those students that are disabled, only a small proportion, that is 4% of the total number of disabled kids, have been enrolled in institutions of students with special needs. This is a very low number since children with special needs find it difficult to study in the normal kids' school. In Malaysia, for instance, gaps in the achievement in the education system is of main focus. There is a need to indulge in programs such as English, Mathematics, Science, and ICT in order to help bridge the gap between the rural and the urban children. Some of the factors that contribute to inequality of education and learning opportunities for children in Asian countries include:

- ***Lack of Available School Buildings and Classrooms with all Required Facilities*:** In order for the students to achieve the required skills and knowledge, the classrooms need to be well equipped to fit the learning environment. It has been quite a challenge since the schools in the Asian countries are running low on resources that would have otherwise been important in acquiring the facilities. This factor however does not apply to a number of countries such as Singapore and Brunei due to their developments, unlike most of the countries in this region who are facing this problem.
- ***Shortage of Teachers, Especially in Remote Places*:** Teachers are acquired when there are higher education facilities that can be

able to train them and provide them with the proper credentials recognizable all over the world. The number of students in need for education is a great number compared to the number of individuals that can provide education o them. In countries such as Thailand and Indonesia, one would find a single teacher tasked with teaching more than one grade in a particular primary school. This is what is termed as multi-grade teaching.

- ***Uneven Spread of the Population*:** This creates serious disparities in the education system. This occurs in big countries such as Indonesia that are faced with high populations. This country has 18 provinces and a population of about 5.5 million people. To make the situation worse, the population has been spread unevenly in the country, which make it hard to access some of the resources in the country.
- ***Lack of Good Textbooks and Learning Materials*:** In order to have a good learning experience, an institution needs to have textbooks and learning materials. This is, however, a big challenge due to the fact that the countries are in financial turmoil and geographical problems. This reason majorly affects the schools in the remote areas.
- ***Geographical Location*:** There are a large number of children that are living in the remote areas and as a result it has become quite difficult to reach them and enquire what the issue is and the reasons behind them not going to school. As a result, they remain at homes without the knowledge of the government. Furthermore, these areas are affected by poor infrastructure and the lack of schools. In some of the remote areas, the number of students is quite small, which makes it expensive to build a school. As such, it goes without notice and the children there are ignore (Hallinger and Lu, 2011). It should not be the case given all children should be given equal attention. The problem with urban centers is that the student-teacher ratio is normally quite large making teaching quite problematic.
- ***Students and Parents' Low Appreciation Toward Education*:** It has been a long time for most of Asian families not going to school. Most of Asian parents have never stepped to the compound of a school and are seeing the level of survival being low. As such, these parents do not have a clue of the importance of enrolling

their kids to schools. This situation is further made worse by the fact that most of the students who have had the chance of finishing universities not being able to acquire a job and remaining to be unemployed over many years. Ideally, in Asian countries, there are community beliefs and traditions that limit the female gender from accessing the schools or rather continuing their education to higher levels. In such scenarios, the government needs to take an initiative to incentivize the female education or even come up with a policy that enquires all the children to be in school regardless of their gender.

- ***Level of Socioeconomic Condition in the Country*:** The majority of individuals in Asia, especially hos in southeastern parts live below the poverty line. It is with no doubt that poor families do not consider education to be an important factor. This is so because the economic condition of families in this region is wanting such that children have to take the responsibility to help their parents to acquire income. As such, these students do not get the chance to go to school as their age mates do. Taking for instance, in the Philippines, there is a high demand for children to help their parents in their day-to-day activities. For the poor individuals in the society, access, and equity becomes a major problem, especially when dealing with the financing of the education system in this country. There is a pressure on the children to ensure the survival of their family members, which is combined with the fact that parents have a negative attitude towards education. These are some of the things that are put into consideration when deciding whether or not a child needs to go to school.
- ***Lack of Budget for Building More Schools, Classrooms, and Learning Facilities:*** It is always considered to be the role of the government to fund the education facilities. However, funding has always been considered to be a great issue, especially when one is dealing with a great number of children and individuals who want to be involved in education. A wide geographical area makes the situation even worse. Most of the governments put their focus on the areas that need little to no attention at all instead of those areas that are in dire need of assistance.

With all these problems, it is not only the children that are affected but the quality of education provided in these areas as well. As such, the

government needs to deal with the quality of education provided so as to ensure that there is improvement in the quality of the same. There are some measures that the countries have undertaken to deal with the problem of equity in education:

- Publish more textbooks and learning materials for distribution;
- Develop and implement alternative education programs such as small schools;
- Train and appoint more teachers especially to remote places;
- an education act or law, stipulating those children of ages 6, 9, to 12 years are subjected to compulsory education;
- Increase community and private sector participation in the education system;
- create awareness among individuals on the importance of schooling and education;
- Provide assistance to disadvantage children such as stipend program;
- Provide free education to all students, especially those in primary and secondary schools.

With the implementation of these policies, the Asian countries are sure to be known for best education system.

Chapter 9

Educational Transformation and ICT in Asia

CONTENTS

9.1. NEED FOR TRANSFORMATION IN EDUCATION

It is with no doubt that, the education system is changing all around the world and it is not by substitution. The changes are rather described as a transformation as is occurring due to a number of known and rather popular factors including the increase in the population of children in the school premises. Furthermore, the demand for employers for certain skills and an increase in the number of individuals to be employed in their organization are some of the factors that have led to the transformation of the education systems (Figure 9.1).

Figure 9.1. *Students on graduation grounds. The increase in the number of students in the schools and the demand by employers for individuals to work in their organizations possessing certain skills are the main reason why there is a transformation in the school environment.*

Source: WENR-WES.

This particular reason mainly targets the universities but the vocational training centers and the high schools are where these changes are taking quite a turn. It is with no doubt that these transformations are required by the schools and could be what helps the future generations drive the world towards success. Consequently, these transformations are making the education system more and more student-centered and competency-based rather than just having basic learning (Hawkins, 2012). This is supported by the fact that in institutions of higher learning, students are allowed to choose subjects that allows them to specialize in the careers they would wish to pursue once they are done with their studies. Furthermore, to make education more and more effective, it needs to be student-centered ad, not teacher-centered. This means that what is to be taught in the school premises should

be exactly what will build a student into a career he/she wishes to pursue rather than learn what the teacher wishes to teach or rather the subject the teaches support to be in the student's curriculum. Ideally, businesspersons tend to always say that the customer is always right and thus, in this case, the student is treated more like a customer than a child. This means that just like a child, the student is guided to do what is considered to be right, but on the other hand, these young souls are allowed to have a say in what they want to study for the purpose of building their careers. They however do this under the guidance of a professional teacher and further get advisement from the same. As such, there are some important consequences that come about by letting the student be treated like a customer in a business.

The first consequence is that education, in this case, needs to be more flexible than normal. This means that from time to time, education needs to be independent of time and place. A student needs to be allowed to take a course in the time they would want and the place they are comfortable to take the same course. This means that there needs to be a part-time study curriculum. This is the reason why some of the higher learning institutions are having both a full-time a part-time study program. This allows the students to be flexible in what they do. Take for instance, those who need to be in an internship while at the same time going to school. This student is rather allowed to perfect their skills as they work in an organization that provides students with the required training of whatever the student is pursuing. Ideally, this could happen in the school premises, at their homes, and in the job, they are in. There are those individuals who have been employed and need to further their education in order to improve their skills or get that promotion that everyone in the office is eyeing. It should be seen that there are observable differences in students that are brought about by how different students learn. When it comes to student-centered education, it considers the type of learning style that the student uses, their personal attributes, and the qualities and experiences that got to be passed down from their parents to themselves while they are being raised. When it comes to the use of ICT, what individuals describe as digital learning, all these can be made possible. When it comes to advising individuals or rather implementing the student-centered education system, it does not quite mean that there will be independence from teachers in the curriculum (Hallinger and Lu, 2011). As seen, the interaction with the teachers will still remain to be an important factor, and the use of the ICT system will make the interaction more plausible. This means that in order for the situation to be successful and effective, the flexibility of the curriculum and both the

students should be organized. The teachers and the students, in this case, need to be able to work together in order to ensure that the organization works well. Interaction and communication are the most basic and the most vital components in ensuring that the flexibility of the program works. This is because these two factors are considered to be essential when delivering education asynchronously.

The other consequence that is experienced due to the process of ensuring that the education system is more student-centered rather than being teacher-centered is that working, and studying need to be facilitated. It has already been discussed that there are those employees that go back to school in order to improve on their skills or rather get that promotion that he and his colleagues are eyeing. This can easily put but putting into account the fact that, in their time as a student, which is basically a career, the students were evolved and were working students and as such with the evolvement of time, they are becoming studying workers. This shows that they will be experiencing a lifelong learning curve where they might even have half their lives learning. In order to make studying and working possible, employers need to be able to work well with their employees to make the process possible. They rather need to make arrangements with regard to their shifts in their working environment in order to be able to fit in the school schedule that has been put in place by the institution (Cummings et al., 2014). It is quite hard to have the school curriculum change for one single person, but a person can ask their employer to help them in their time allocation in order to be able to meet the needs of the workplace together with meeting the work curriculum. In order to make it even easier for the students, the universities need to be able to create employment opportunities for the students in order to reveal any forms of confusion. This is actually considered to be a common practice among the United States and the Dutch Universities but not so much in Dutch. It is for this reason that universities are becoming more and more successful. This situation is both beneficial to the students and the universities since the students get to improve on their skills while taking their classes and accessing the learning facilities to make their education process more effective. This process is also considered very effective since, in the process, the universities will have the ability to deliver a more student-centered course. In the process of the universities facilitating a combination of working and studying, there will be ease in the provision of courses that are more student-centered and not teacher-centered. With the use of ICT, the process is made even more effective since the students have the capacity to attend their classes in the offices, and when there is no

learning going on, they can be able to catch up with the office work. With these two consequences, it means that the students are not filled without skills, insights, and knowledge but are rather made competent in other working experiences once they are employed. This means that the education provided will be considered to be competency-based which is exactly what each student needs in their lives, it allows the student to be able to be work effective, especially in this ever-changing world given the always-changing environment (Figure 9.2).

Figure 9.2. *Employee training in Asia. Once the education system has been transformed to be competency-based rather than being learning-based, the individuals will be even more flexible in their working environments. This means that they will be open to training and new knowledge that is provided by the ones that have been in the organizations for longer periods.*

Source: Job and Work, Asia.

This means that those that are responsible for teaching the students are not teaching them to learn but are rather teaching them to be professionals in the world. The reason behind this is that education actually does not stop after university education but actually continues beyond that. Using such transformations allows individuals to accept what they are being taught even once they are in their working environments. It is with no doubt that life-long learning is very important, but it rather does not mean that insights skills and knowledge are not. As a matter of fact, they are the driving force of ensuring that the competence-based type of education system is in the capacity to work. This however mesa that the teacher will be delegated with more work than they are used to. They need to teach the knowledge, insights,

and skills while at the same time delivering competency-based learning to their students. It further means that the teacher needs to move away from the comfort of what they specialized in and have the ability to be all around. It is with no doubt that ICT can be an important tool that allows for this (Hashim et al., 2011).

In order to be effective changes in the education system, ICT needs to be used as a tool in the learning process. One can even point out that ICT can be recognized as a toolbox for educational transformation. In order to make learning and the teaching process more efficient and effective, there needs to be an efficient use of digital learning environments, databases from which we retrieve information, not forgetting the better use of courseware and e-mail—not forgetting the use of the internet. This includes making good use of ICT to acquire the learning materials from different individuals or rather scholars. This process will help in the expansion of knowledge of the individuals that are in the learning process. There is more information available on the World Wide Web as it allows individuals to acquire more and more information. Given the current state of the world the technological changes that are always taking place around the world, it is clear to say that the transformations that are taking place in the education system are inevitable and that individuals have to learn how to cope with such instances. In order to understand the transformations that are taking place in the education system, we need to understand what actually drives the process and further answer the question of how exactly individuals get to the place of transformation. All these are some of the transformations that are being seen all around the world, including some parts of Asia, and might be the help that other regions require in order to up their game in the process of education transformation.

9.2. HOW WE ARE GETTING THERE AND WHAT ASIAN COUNTRIES SHOULD LOOK AT TO PROMOTE ICT USE IN TRANSFORMING EDUCATION?

In some universities, there is the use of the integrated approach in which the universities are always looking for alliances whether with other schools internationally or the investors who bring research and development opportunities to the students in a university. Furthermore, they encourage the faculties to be participatory in the process. Take, for instance, the faculties are allowed to call upon other individuals in other international universities to bring forth opportunities and scholarships to support students

in their faculties. The integrated approach. In this case, it allows for the major projects to take place in a particular university or rather a learning institution. The universities take up the ability to start up the flexible learning systems in their universities. As such, it pushed for a lot of changes to take place in the universities, rebuilding of the universities, bringing forth the virtual library system, and further rethinking the administrational process. These projects are rather considered to be the consequences of a student-centered approach because that is exactly what is being brought into play by the university stakeholders. It is with no doubt that there is a recognizable relationship in these programs.

Flexible learning is another approach that guides the world's educational system towards a student-centered sector. In this case, it is learning independent of time and place. The characteristics and the attributes of the students are fully taken into account. The approach requires that the students be in the presence of computers at all times in whatever place they are as they may be required to use them or rather attend the classes. They can also be able to use the computers to perform different work duties wherever they are. This is the reason why the students are encouraged to buy computers and you can see that the more developed counties are getting internet to the homes of individuals in order to make the situation easier for the students in whatever place they decide to work at (Grossman et al., 2008). In fact, the internet has been made to be like electricity. It is essential to be in the working environment and is installed even before an individual decides to move into an apartment. This is also the case for the locomotive substances such as the trains and the buses that the individuals take to work. The organizations also have Internet installed in their buildings to enable the learning process to be a success for those who must have a learning environment in the office. Consequently, the installation of the internet is driven by the fact that technology is always changing and the world is also changing as well. There is also the introduction of a Group-Ware product and the use of the internet and its installation is further intensified by the need to organize the interaction and the communication process. In order to make this process a success, there will be the introduction of a digital learning environment in most if not all the institutions and universities (Figure 9.3).

Figure 9.3. *Preparation of the students to a digital learning age. The digital learning environment is being encouraged worldwide, and more schools are adopting the way of teaching. As such, there has been more and more training of the teachers and the students at large. This process will allow for efficiency in the school environments and further bring about flexibility in the learning environment.*

Source: Development Asia.

In order to be a success, there needs to be changed in the organization of universities. The educational units in the school curriculums that allow for the success of the students are the institutions and how they are being conducted by the stakeholders. The majority of individuals that are found on the university premises are normally the teaching staff. They make more than 70% of the total staff present in the universities. The other positions are normally filled by the Facility management, Student-administration, Student Services, Financial economical affairs, Personnel affairs Library, and the IT departments, which are in most cases placed in two departments. Ideally, these departments are known for the purpose of delivering customer-oriented services. This means that they are known for delivering services that are for the benefit of the civilians of the society and the students. When it comes to aiding the students, they are there to make sure that the social side of their student life is at bay with the requirements of the school environment. Take for instance, the financial and the economic affairs department. This sector tries to ensure that there is a discipline with the students It terms of the amount of money they are required to pay as fees so as to allow learning to take place. The fees that are being paid are considered to be essential in order to allow for the payment of the teacher's salary. This shows that it is not only the educational sector in the university that needs to be student-centered,

but the whole department needs to jump into the bandwagon as well. This means that the other departments are required to be customer-oriented. The facilities that are used in the department should have the ability to lower the threshold in order to allow for the students to have a better environment in what they do in order to enable the use of ICT by the students in an effective manner. There are even those universities and the states at large that have been able to come up with ways to provide the students with stipend in order to allow them to acquire the facilities that are required for them to access the internet facilities. This makes the reason why a facility of education that is centered on the use of technology, there will be individuals that will come forth to support them (Green, 2013).

Rethinking the administrational process is the other thing that will bring the education system over to the top. The administrational process for the institutions normally takes place in one of the departments that have been mentioned above, the two departments in most cases act as one. The countries in the Asian countries are trying their best to ensure this process in the education system in order to allow for the transformation of the schools. These two departments need to be able to work together as a group for the benefit of the students. Basically, the idea is that a digital environment is normally brought into play for the purpose of the students. In an institutional environment, that not only the digital environment is brought about and there is the provision of information for the students and the organization in his university career, there is probably a higher chance of success compared to the universities that do not consider the same. There is always an individual study contract between the student and the university in the case where the digital environment has been put into play.

Rearranging of the building. This is one reason that is more than obvious. This is so because of the transformation that is taking part in the Asian education system. Students are becoming more and more conversant with the education system, and as a result, there is an increase in the number of students that are availing themselves in the school facilities. As such, the reason behind the expansion of the school building facilities and further the increase in the number of skilled schoolteachers. What is being taken into account is the changes in the education system that seems to be affecting the education sector all over the world, including the Asian countries. The developed Asia countries such as China and Singapore are known for their transformation or rather the advancement in the technological sector. This is one of the major drivers of the educational transformation in Asian

countries. The underdeveloped countries, on the other hand, are trying their best to bring about transformation by introducing the use of ICT in order to allow their children to gain opportunities in the developed countries within their continent. By expanding the buildings that are used in the educational facilities, it means that the students are the starting points in each idea that is made regarding the education system (Chiswick and DebBurman, 2004). In this case, the expansion need not only mean that the number of classrooms is increased but also the introduction of computers in some of these classrooms that are being built. The areas, in which the computers are placed, should be strategic to a point that the students can have the ability to recognize them whenever they are (Figure 9.4).

Figure 9.4. *The next generation of students in the Asian countries in a classroom with computers. Computers are the source of information in the current society and thus the use of the same or rather bringing them in the classroom environment is an important factor that needs to be considered by all the schools. This is especially the advice to the Asian countries given the fact that they are the root of technological development.*

Source: Microsoft News.

Improvement of the library to be efficient for the students that are both accessing it physically and digitally. This means that all the books that are present in the school library need to be on the library's digital platform in order to allow the students to access the materials wherever they are. Since time immemorial, libraries were the cornerstone of the universities meaning that they were the driving factor that help students determine the universities that they see to be better than the rest. You would even find students choosing a university they would want to go to using the size of the library and the

number advancement of the facility in terms of being stuck up with books and having been enrolled in a digital library. It is with no doubt that the library in any education facility is considered to be the center of knowledge regardless of the level of education, be it basic, secondary, TVETs, colleges, and universities. This might have been true maybe in the historical societies given the fact that individuals had no access to the internet and had to depend on the already written books. We might even say that the book writers were getting more and more cash since they had an opportunity to sell their books. In the current world, however, ICT has made it easier for individuals to access the literature that they require. Ideally, it is true to say that education is everywhere given the fact that with the internet, the students can acquire the information they need and even more without having to go to the library. This is the beauty of technological transformation. It means that with ICT, it is not important to consider the physical place that the study equipment is present but rather whether the equipment needed is present on the internet. This is the place where the books and magazines are delivered and also the educational services are delivered. By the use of the internet, the students have the ability to acquire the tutorials that are provided by individuals for the purpose of seeking quality information and be able to understand what they need to as they tend to clarify things whenever a student did not have the ability to understand well. The information that is provided in the platform is also digitalized more and more, and the students have the ability to consult for information digitally.

In this case scenario, the librarian will serve to be an individual who has less and less work and, in the future, will be treated as an individual who brokers between demand and supply of information. The current society's children are growing to apply the visual culture in their learning experience, unlike in the past where the students used the learning culture to adequately grasp the things that were being taught. Consequently, the librarians should be well conversant with the ICT tools in order to ensure that they are safe within their job industries. It should be noted that the use of the internet would be used to substitute the physical learning situations (Forlin and Lian, 2008). Furthermore, given the cases of some crises that have forced the children to move towards a digital learning era, it is more likely that this form of education systems, especially in the more developed countries, will be adopted for a long time even after the crises have been averted. At this time, the service of using ICT in the education system is being made more efficient and effective by ensuring that the digital connection is better to prevent bumps and the information is further made accessible for the

students that are making use of them. The transformation towards the use of the digital system is currently facing a lot of challenges given the fact that it is in its starting era and the students are in the learning curve. With time, all the stakeholders that will be making use of this transformation will find it smooth and will be applied by individuals all around the world. Since the internet is making the world seem like a global village, the use of CT will allow students internationally to work to gather at minimal costs, as they will be staying in their own countries. With the decrease in the cost used to provide scholarships for students, they will be able to grant such opportunities to more of the studies hence allowing for the transformation of the educational system by the use of ICT.

9.3. ICT USE AND TRANSFORMATION IN EDUCATION IN ASIA

In the case of considering the more current issues, which involve the use of technology in the transformation of the education system, it will not be easier for someone to resist what is exactly going to be next in the technological industry. In the last decade, individuals all around the world have been looking into the Asian countries regarding the kind of technologies that these countries will be able to release next. While researching the use of technology in the education system, the history of education in the world considers the predictions that have been done on the technological system for the purpose of future use. There are those individuals that are widely known in Asia for being the technological nerds and further believed to be those that will introduce the use of technology in the education systems). (Faragher et al., 2021). These individuals include the young Filipinos whose affinity for SMS was the reason behind the texting capital as is known by individuals all around the world, which then led to the Indonesian countries being recognized as the social media capital on the world. The others are those that frequented in the Akihabara section of Tokyo in the 1980s and became the center of emerging issues all around the world with issues relating to the technological transformation of everything including education all around the world. It is with no doubt the East parts of the world have always been recognized as the center of gravity for the young people that are using technologies all around the world. These statements so that, when trying to figure the technological transformation in these countries and the individuals who have taken charge, what comes to mind are the Asian young souls. There is even a time when the World Bank decided to take

part by co-sponsoring an annual event (Cummings et al., 2014). This event was the reason why the educational policymakers in Seoul decided to take charge each fall to assist in the discussion and planning of the technological use ad advancements in the education system and the turn it may take due to such introductions in the education systems. These meetings or rather the events that are being held each year are attributed to the fact that the individuals in the Asian curies are willing to go the extra mile to improve the current education system in order to improve the future of the same in their countries.

What serves to be the diverse spectrum in the transformation in the technological sector is the stereotypical hyper-connected, tech-savvy, mobile-phone wielding youths in some of the big cities in the Asian countries. These individuals are the ones who tend to review their vocabularies while communicating with their friends and families or rather using the internet in studying and acquiring information in the wee hours at their homes for the hostels. The problem normally arises when it comes to dealing with the students that reside in the rural areas where electricity is one of the major problems thus making internet connectivity one of the major problems. As such, it would be quite hard to get the schools in these areas to have access to the computers, let alone even one of them owning a portable device allowing them to acquire internet services at the comfort of their homes. We can even say that the chance of these individuals actually seeing and using a computer is in the university education or rather the institutions of higher learning where the use of such tools is becoming a serious need by the stakeholders. In another circumstance which is normally considered to be better for the schools that have such opportunities is when a school in the rural areas has one or two computers that have been donated in order to allow for the students to study for a computer source. In this case, the situation is not effective since the students are forced to be crowded in a single area in order to acquire a teaching moment on computer studies. It is not efficient since teaching a large group of students is normally a challenge in terms of equitable learning experience in the country at large and getting a quality education. It is normally not easy to teach a greater group of students and thus quite difficult to have that one-on-one experience with the students. In order to learn some of the most crucial computer programs, the teacher is forced to make the students wait and wait and wait for their weak internet connection to bring up a single web page. In this case scenario, it normally takes a lot of time, and as a result, the teacher finishes a term even before all the students get to learn the basic computer programs. This scenario actually

represents this case in the Asian countries that are experienced by teachers and students while in the process of trying to push a country to a place of educational transformation by the use of ICT.

In order to understand the future of ICT in the education systems, individuals normally consider hypothesizing some of the roles it will play in the future given the current state of the world and how it may help the Asian countries. Individuals even try to consider what they need to do in order to have that shot in understanding exactly what is likely to be experienced in the school setups. What is brought to the attention of the individuals in Asia is that in order to critically understand what might happen in the future there needs to consider how important it is to observe what is actually happening in the current world (Hallinger and Lu, 2011).

9.4. ICT USE IN EDUCATION IN ASIA: CONSIDERING AN ANALYSIS OF INTEGRATION OF ICT AND THE READINESS OF THE SCHOOLS ACROSS ASIA

It is widely accepted by the policymakers that access to information and communication technology (ICT) when it comes to dealing with education, especially in the current world can help individuals to compete in a global economy. This can be done by creating a skilled workforce and further ensuring that the society has been mobilized to ensure the same. The emphasis is on the multiplier effect that ICT in education provides throughout the education system. ICT does this by reaching students with poor or no access, enhancing learning and further ensuring that there is the provision of new sets of skills, minimizing costs that are connected to the delivery of traditional instruction, and facilitating and improving the training of teachers. Beyond this, the only thing that remains is the measurement of ICT in education, its usage, and potential outcomes.

This report on Asia is written in a way that follows similar UIS publications on Latin America and the Caribbean and in five Arab states. It is with no doubt that important to note that the much that the UIS has collected and presented takes the form of a somewhat basic, initial inventory. The report considers the number of computers that are present in the school environment, if the schools are connected to the Internet and how fast the internet is, whether the teachers have received ICT-related training, and the number of them that have had the ability to go through the same training among others. The survey acted as a baseline in understanding the use of the ICT technology in the Asian countries and what might actually be

done in order to improve ICT usage in the Ares. It has also allowed for the policymakers to determine whether there is a way they could come up with policy guidelines to encourage students and teachers to transform the education sector by use of ICT facilities. In observing technology usage in Education, it is important to fully understand the mode of integration of the same in the education system (Hashim et al., 2011). The knowledge behind this is ensuring that the teachers are first trained before introducing the same in the education curriculum. First of all, it is important that individuals understand the disparities that exist between the use of technology in the Asian countries and other countries and most importantly across the broadband, the number of computers available in the school and the school's access to the Internet. This helps in identifying electricity can be divided across the country in order to allow for the access of internet by children all over Asia whether they are in the rural or urban centers. Access to electricity in most cases though not always normally corresponds to internet access. There is the presence of what is known as "virtually universal fixed broadband" in several countries in the Asian continent, including Australia, Hong Kong, Brunei Darussalam, the special administrative region of China, and the Republic of Korea, Japan, Malaysia, Singapore, and Thailand." This is not actually the case in some of the underdeveloped countries that are found in Asia, including Cambodia, Kyrgyzstan, and Bangladesh (Figure 9.5).

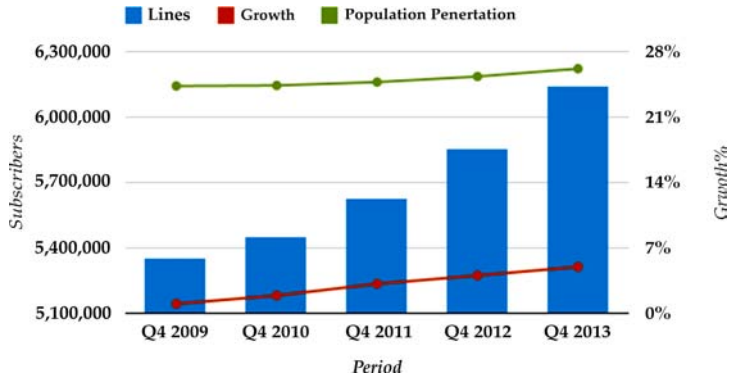

Figure 9.5. *An overview of Australian broadband. There is an upward trend, which is a great factor in the educational and the technological society at large. This is one of the countries that have gotten an opportunity to have a virtually universal fixed program. This will bring about transformation in the education sector.*

Source: Point Topic.

There are many reminders and caveats that are provided by the UIS reports, which talks of the limitations of certain definitions and further tries to draw out some of the easy interpretations of data concerning the use of ICT in the education system. In the discussions that are provided by the reports of the UIS, the presence of a teacher training program that is related to ICTs is quite ow that it might not be able to cover the always-rising number of students in the country. It also shows that it has not been clearly stipulated how long the training should take place and the kind of training that is considered to be most appropriate and affordable. Wat also seems not to be mentioned as the workforce that is needed to be created in order to motivate the use of ICT in the classroom by embodying it in the then school curriculum (Grossman et al., 2008). There are many questions that are posed concerning what it is about the use of ICT in education across the continent. The UIS report does not actually provide the required answers on the same in Asia and thus a need for further research on the same. In general, this shortcoming on the same provides an opportunity for the policymakers to fully come up with the insights that ensure the readiness of the Asian education system in the integration of ICT in their works. This will further provide hope for the stakeholders in the teaching department, mostly the teachers and the students in years to come.

It is thus up to the Asian countries, especially those with rural areas to look into the ways in which the transformation in the education sector takes place in order to introduce the use of ICT. To promote equity and an improvement in the quality of education, there is a need to introduce the use of ICT even in remote areas.

Chapter 10

School Reforms and Democracy in Asia

CONTENTS

10.1. INTRODUCTION

Countries all around the world are going through the phase in which they are changing. It is with no doubt that Asian countries are going through the same thing. Change is good for a country, especially one which is in need to go through development. Furthermore, it is inevitable and is worth experiencing. It is worth accepting change, though there are those who are always willing to resist change. Critics are however needed, especially when a country is going through this phase. These are the individuals that will help the emulators or rather the implementers of change in making the right choices in the process. These transitions are experienced in some sectors of a country, including the social, economic, and political ones. If one is considering education as a sector, especially due to the fact that it has gained fame among individuals that it fits to be seen as a sector. Ideally, the education sector is not left behind as they are also going through the transition of change (Hashim et al., 2011).

Looking at the Asian countries, the transitioning towards something new is a positive phase. This is because some of the countries in the Asian region are still being governed by the military government or by a staunchly authoritarian government. Making the situation worse, there are those states that are being governed by both of these agents of the governments. As such, a transition of their countries is a positive influence. Democracy also has a sweet ring to the year, meaning that they can be able to have a say in whatever they do or the individuals that get to lead these souls. These shady authorities are normally backed by the colonial powers. This was the case in all of Asia, but since colonial times, there are a majorly that have grown out of that phase. They are rather moving towards the nominal forces of democracy and moving towards modernized projects. The reason for the transition is because of the pressure from the global society regarding neoliberalism. These countries are going through what is termed as compressed modernization. As such, they have been able to raise eyebrows because of what other global societies know them for and have been able to transform themselves from the third world to the first countries, which is a huge step up for the region. This is the reason why most of the electronics or rather those items that are technological come from Asian countries.

Ideally, we can say that they have been able to work as hard as they can for them to be able to sustain themselves. As a matter of fact, these countries have had the ability to lend some of the developing countries funds to aid in their development which is a big step up for these countries. The ability

of these countries to transform in this positive direction is fully attributed to the changed education system. Education builds almost everything in the society starting from the character of an individual to the knowledge and skills that they gain in their years and can be said that it is with no doubt responsible for the changes in the countries. It has been able to transform the lives of individuals and brought about development in a country. In fact, the success is fully attributed to the large-scale curriculum reforms that were brought into play for the sake of retooling the productive capacities of the education system. The countries have put much of their attention into the education system and aver gone to an extent to make sure that they have the ability to single-handedly shape what should be considered, especially when deciding what counts as official knowledge. Furthermore, they have made it their job to decide exactly what needs to be done in a classroom and the entire school in every aspect that can be known to bring out and address the aspirations of the groups that are considered to be dominant in the society (Figure 10.1).

Figure 10.1. *The transition of the Asian countries is fully attributed to the education system. Education forms the basis for success in most sectors in a particular country as they help in the attainment of knowledge and skill. These help in the transformation of a country towards a better future.*

Source: SciDev.net.

At the same time, there are a number of reforms that are being brought into play by all the countries around the world regarding the education system that is being recognized all over the world. These policies are with no doubt affecting the children as it regards the age of the children are going to school. This especially affects the middle-class societies of some of the parts of Asia, including Singapore, Taiwan, Korea, and, Hong Kong

among many other cities that are found in China. These countries are of great significance as they have had the ability to fragment society, especially when it comes to defining what is exactly done in the school environments. In recent years there are some concerns that have been considered and been proven in these countries. These interests that have been put forth by the individuals from these regions do not, however in agreement with the policies of the states, which may sometimes have an impact on the success of the education system in a particular country change (Grossman et al., 2008). It is sometimes important for the stakeholders in the education system to have an agreement on a number of factors in order to ensure success. However, in other instances, critics are quite important as they allow those responsible for a particular sector to be alert so as not to make mistakes in the decisions that they make. Given these facts, it is with no doubt that the developments that bring about new forms of social control are particularly needed in order to ensure that regimes have the ability to consolidate rather than retaining their strengths in these cases.

It is with no doubt that the education sector in the Asian countries has highly transitioned from the colonial times, but the political sector is still in the process and maybe the largest contributor of disparities that are seen in the Asian countries, especially when dealing with social classes. Because of this reason, it is with no doubt why the education sector is going through a certain setback, such as having a curriculum involving huge amounts of ideological work. Given these circumstances, it will be wise for individuals all around the world to enquire about the same, that is, the curriculum used and the educational reforms in the region in a manner that is not considered to be educative. These countries are somewhat going through a phase of transformation in the political and the social sectors and are not considered quite wise to regard the education system they are using. It is recognized that instead of the regions putting all their effort in transforming the educational system in order to achieve better outcomes in the future, transformations are put mainly on the political and the social transformations (Green, 2013). This is because the countries in the region are characterized by politically active and interested citizens and those that are amidst some of the massive social transformations. It makes it quite difficult for individuals to understand how the education system is made successful using a particular strategy, mainly the curriculum used. It becomes complicated but on the other hand, very crucial, especially when analyzing the contradictory and rather complex dynamics that are involved in the educational reforms in the classrooms and schools in Asia. The countries in the region have even gone forth to introduce

scholarships that are offered to the students that are doing well in school, which is a good transformation. However, these scholarships have their main focus on the curriculum reforms, which assume the teleology that is seen in change, especially that which is linear and unidimensional. The discussions that are normally held are on the function that the educational system has on the institutions that are brought into play. Further considerations are also given to the transformative potential of the improvements that are made on the school premises and are mostly done and driven by the state of a particular country. The agendas regarding the research and developments, policy formulation and implementation, and the success of a particular instrument used in a particular transformation process are also considered to be of vital importance. All these mentioned are some of the factors that may or rather actually lead to the success of the education system, but apart from this, the challenges and the limitations that are encountered when in the process of transforming schools are also considered (Forlin and Lian, 2008). Looking at the negative factors that hinder the process of transforming a particular subject is normally considered important as they are the guiding factors in ensuring that a particular reform does not fail. Just like an entrepreneur needs to consider the strengths, weaknesses, opportunities, and threats, the stakeholders in the education system also need to be keen in ensuring that the schools and classrooms do not fail. These are the driving factors that ensure that the reform that has been suggested or rather the goals that have been set are successful. Success in the strategies used in transforming the schools means the success of the children and their schools, and as such, all factors need to be considered. Even though these reforms and studies that have been done on the same are considered to be very important, especially in understanding the shifts in the knowledge forms across all of Asia, it is with no doubt that the same remains tacitly framed by what is considered to be a discourse of efficacy.

It is with no doubt that it is important to fully study and understand the complex nature of the postcolonial, cultural, and historical practices of the Asian societies and the consciousness that they are experiencing. By understanding this, it allows the scholars and the researchers to understand what approaches need to be adopted, especially when there is a need to change the terrain of knowledge and the subjectiveness of individuals, especially those that are enrolled in a particular school curriculum. In addition, it will play a major role in changing and constructing the power relations within the school premises and among the individuals of the public at large. It is thus important to understand the changes and the reforms that are taking

place in these countries in order to have knowledge of the tensions and the possibilities that exist within the educational framework. It will further help the researchers in the process of providing insights regarding the new educational systems and understanding the society at large and what needs to be done to improve the societal point of view, especially when dealing with education.

10.2. POWER, CULTURE, AND KNOWLEDGE IN ASIA

In order to fully understand the reforms that have taken place in the Asian education system, it is with no doubt important to understand the culture, history, authority structures, power relations, state formation, politics, epistemology, social control, and the ideology behind every aspect in the Asian society. By having knowledge of the same, one would be able to understand the interactions that exist between the ministries of education in these countries and the other sectors that are present in a particular country. These sectors include the state boards, agencies, schools, schoolteachers, university department of education, the education unions, the media, the local individuals that are highly interested in the same, the children, and the international educational reforms discourses (Faragher et al., 2021). All these sectors are very important, especially when there is a need to reform the education systems in a particular country. In a region that is well famous for the problems that are encountered in the societies, it is quite important to have questions on the practices involved in the society and the socialization practices. This helps in understanding the complex dynamics of the curriculum reforms. By having knowledge of some of the societal dynamics, it will be easy to answer or rather understand how the civil society at large helps in understanding how the state holds on the particular concept which is of legitimate knowledge. It will further aid in understanding what happens to the cultural and societal knowledge of the past. The past is quite important as it helps in the shaping of the behavior of the children in society. The old ways should not be lost but should rather be diffused into the current world knowledge in order to assist the children in their path of gaining knowledge (Figure 10.2).

Figure 10.2. *Grandparents normally help the children of the current world understand the knowledge of the past while at the same time they strive to understand the ways of the current world. The old ways may seem predated but are the guiding factor of the behavior of children in the current society.*

Source: iStock.

Furthermore, in understanding the non-popular cultures in the society, it will be easier for one to understand what position they are in a country and the forms of resistance, if any that they create in the society. Some of the cultures hinder the children from going to school, and by understanding the reason behind such instances, the government will be able to understand what needs to be done in order to convince the parents to let their children explore the school premises. Furthermore, b exploring the school, the children will be able to get into contact with the new knowledge that has been brought forth in the new curriculum. Furthermore, the state will be able to understand the intentions of the counter-hegemonic individuals that are found in society. This will further help them in dealing with any situation that is brought forth by these individuals of the society. The state will be able to understand the ideals and the ideologies that are being forth by these individuals of the society. Furthermore, they will be able to know the space or rather the place of these individuals in the society. The Asian region is well known for its brutal colonial era and thus by understanding the reforms that have been put in play on the curriculum will help in gaining insights into how the new waves of the education systems that are emanating from the western region and the supra-national organizations are negotiated, appropriated, and further implemented in their education system. Such

organizations include the OECD who are trying their best to bring about reforms in the education systems (Chiswick and DebBurman, 2004). In understanding the new curriculum, the state will be able to understand some of the challenges and tensions that they may encounter in using the curriculum. This is attributed to the fact that the majority of individuals in Asian society are getting involved in the school system and the activities that are there. Furthermore, by continuing to emulate the new curriculum, the state will be able to understand what they can do in order to deal with the democratization of the new media places. The media is encroaching its claws all over, and they are in most cases acting as the critics of a particular implementation. It is thus very important to understand everything that takes place in a particular avenue in order to ensure that one is not beaten in their own game. Media organizations are always trying to find stories to put in the media, and the best ones are of those that a particular entity is failing in whatever they are engaged in.

Understanding all of these factors is an important concept as one can be able to frame them and speak from a point in which they understand rather than getting the perspectives of the same in a sense of universality that is emerging from somewhere else. The state will be confident in what they sat and furthermore, there will be authenticity in their speeches regarding the same. In doing this, these engagements and the writings that emanate from the same, which is often found in the articles that individuals read, will bring about power in the truth that is spoken. In the areas that there are such scholarships but are less reformed, the authors have to bear some forms of political risks in the work that they do (Vickers et al., 2013). Even though such risks are the main reason as to why the Western scholarships in generations ago were able to have a success, which is still the case until recently, they are the reason why there is no success as they are responsible for interrupting the dominant discourses of power, knowledge, and culture in the Asian countries. This is considered as rather a negative phenomenon given the fact that in the process, they tend to limit the sayable and the thinkable in the society.

The case of Hong Kong presents a society that is in transition in terms of all the sectors of the society, including the education sector. Furthermore, this region is going through the consequences of liberalization and an imminent future that is characterized by illiberal governance and values. In 2012, the government of Hong Kong, in their effort to implement what has been done in China involving the national education curriculum was what is considered to be an epic failure. The attempts of this country bore no

fruits which was a negative scenario. In studies done by the researchers and the individuals trying to understand the colonial past of countries and the processes put into play to bring about new transformations in the country, have been able to understand the notion that suppression is brought about by a point of marginalization. Furthermore, such instances have led to the rising of the counter-hegemonic work involving individuals that are not willing to help in the change process but are always there to critic what is being said by the government (Cummings et al., 2014). This is normally popular in the conditions of dominations in a particular society. There are, however some scholars who do not agree on the same. One of them is Koh who presents another perspective of the same, claiming that the dominant groups of the society normally engage in what he claims to be a subterfuge hegemonic work. This is normally done through the media, which is predominantly by the non-dominant positions in the society but is rather a temporary case. All this helps in understanding some of the reforms and the cases of democracy when dealing with the education system in Asian countries.

10.3. SCHOOL REFORM AND DEMOCRACY IN JAPAN

There have been drastic changes involving schools in Japan. Just as there has been modern globalization in most Asian countries, including Japan, there has been learning-centered lessons, and there is the development of new reforms in the school areas. There are a number of aspects that are seen to have traveled far beyond the Asian territories from the global region, which include multiculturalism, the age of risk, advanced information, environmental-sustainable, and knowledge-based systems. When it comes to dealing with the education system globally, there are those individuals that are considering education as an important aspect, which include the researchers and educational policymakers (Valk et al., 2010). These individuals have brought forth the importance of complexity and specialization of knowledge, interactive communication, which brings about cultural and civilized differences, and the comprehensive and collaborative thinking and skills across various disciplines that are included in the educational curriculum. The direction that the schools in this region are taking is towards a better future as it is training them on being creative, collaborative, critical, being better communicators, taking part in the process of solving problems, having good communication skills, and having good social practice skills (Figure 10.3).

Figure 10.3. *Children in a classroom being collaborative in solving a problem without the help of their teacher. The transformation in the new educational era encourages their students to be critical thinkers and help each other in dealing or rather in solving particular problems. This reform is positive and will help in future decision making.*

Source: theeducatoronline.

In these countries, there has been some form of transformation as there has been an integration between the initialization of the education system with the development of capitalism, industrialism, centralized state organization, and the national government. This has particularly happened in the nineteenth century in America, Europe, and Japan which is particularly interesting for this country. What actually facilitated the efficiency and standardization of the curriculum and the education system at large was the establishment of modern schools. This situation led to the explanation and the transmission of established knowledge, which then resulted in the expansion of educational meritocracy. This allowed for the selection of students through the use of Examinations. Examinations are a spectacular and agreed-upon way of trying to understand the capacity of the students. This is a way in which the students can be easily selected for scholarship opportunities and further being able to move to the next class (Spolsky et al., 2012). Examinations help teachers understand what they need to do in order to ensure that the children have a better future. When the Second World War ended, Japan was able to come up with democratic ideals which involved the inclusion of the society in coming up with the decisions that would affect the society at large. This situation led to the dissemination of the learner-centered education and the students that are highly using the better education facilities and further there was the standardization of the curriculum which is basically the reason behind the success of the education system in Japan

(Choi and Lee, 2008). With the introduction of democracy in the society, there were increases in enrollment of students in the intuitions of higher learning given the fact that education not only provided a sense of equity to its citizens but was rather of better quality compared to before the liberalized era. There was the establishment of basic education law that stipulated the need for all students to have access to basic education. Furthermore, there was an increase in the income levels, which brought about economic growth in the region. This democratic rule after some time expanded quantitatively and led to the expansion of the school systems and the spread of knowledge in the school systems.

There are, however some problems that the schools conversely faced in the 1980s, which led to individuals highlighting some of the negative aspects that are normally experienced within the school premises. Some of the problems that were faced included school violence, juvenile crime, bullying, truancy, and further, there was a collapse of the traditional class management which was rather the class that was responsible for shaping the behavior of the children within the school premises. To make the situation worse, the teachers and the school at large were accused of abusing the students and using excessive power in the current society. In the current society, education is regarded as the turning point, and thus, there are several movements that have been put into play that take part in developing innovative schools which are democratic in nature in a society that is characterized by diversity, complex knowledge, and high in terms of specialization. The style that is used in the process of teaching the students' needs to be transformative, explorative, and have the ability to express exactly what is fed in the mind of the young individuals (Choi and Lee, 2008). When it comes to dealing with the current curriculum, it needs to be interpreted in a manner that conforms to the independently fragmented subject area or in which case can be understood in a manner that is encouraged by individuals all over the country and further connects individuals all over the world. This means that it needs to be one that can be agreed upon by individuals all over the world in order to allow for opportunities. The Program for International Student Assessment (PISA) is an organization that investigates how the knowledge of the students can be used in a manner that will help in solving problems in the real-life world rather than directly providing knowledge as is stipulated in the school curriculum.

10.4. SCHOOL REFORM AND DEMOCRACY IN INDONESIA

In Indonesia, the national education systems trying its best to integrate the Islamic schools in its constituents in order to allow for these individuals that are Islam in the region have an opportunity in the education forum. In Indonesia, the two types of Islamic schools are the Pesantren which are the Islamic boarding schools, and madrasah, which are basically the Islamic day schools. The two schools are almost basically the same and are not uncommon to see the students that are in the madrasah to be students at the Pesantren in which they can return to their evening classes and sleep in their Pesantren. In the current Indonesian society, the madrasah is an integral part which was not actually the case in the nineteenth century. Their development was actually stimulated in the 20th century, which was highly stimulated by the international Islamic movements and by Dutch colonization, which actually took place in that particular century. At this particular time, there existed a battle between the nationalists and the Islamic individuals. The colonial era is to be praised for the reason behind the diversity in the Indonesian education system. This education system has actually created some form of roots in the region and the madrasah are even at the moment being administered by the general rather than what is known as the secular schools by the MONE and the country's ministry of religion (Figure 10.4).

Figure 10.4. *Madrasah in Asia. The introduction of madrasah in the Asian education curriculum is a positive implementation which is a reform that has brought about equity in education with the Muslim children have a chance in the current society.*

Source: NYTimes.

Ideally, the madrasah is under the ministry of religion, in the secular schools, their curriculum is similar. Furthermore, in the general schools where madrasah is being taught, the curriculum is similar to that of the madrasah. There exists a tension regarding dualism and integration, which actually reflects the ideological and political conflict that the madrasahs are facing and are trying to get rid of in this modernized era. In 1975 is when a notable integration took place in which there were three ministers who decreed the same. The three ministers included the ministers of international affairs, religion, and national education. This decree helped in the imposition of the madrasa which constituted 30% of religious subjects and 70% of the secular subjects. One of the benefits that the students from the madrasah were able to experience was the fact that they were allowed to continue with higher education at the secular schools or at the universities. This showed the level of commitment the state had toward ensuring that there was equity in learning despite the fact that there were differences in terms of religion among these individuals. The response of the Muslim community towards this reform was somewhat negative (Macpherson et al., 2014). Mainly due to the fact that according to the Muslim culture, education, especially for female students is considered to be an abomination. However, the government did not take the criticisms of the community as a setback but rather continued with its efforts to modernize the madrasah for the sake of the children. The ability of the kids to get quality education was something that would benefit the country as it will give them opportunities in the current world and further lead to the economic growth of the country. In some way, it can be argued that the state has the best intentions at heart for the individuals in the Muslims in the community. This is attributed to the fact that in the case of success by the students in their careers will assume success for the parents and the community at large. The issue is that. The madrassah has been divided into five classes which include Fiqh (Islamic jurisprudence), Akidah/Akhlak (faith and morality), al-Quran/Hadith (Islamic holy book and the Prophet's traditions), Islamic history, plus Arabic. What the state did is that they increased the number of hours that the Muslims spent in school to acquire knowledge of the same relative to the students in the secular schools. They did this so as to ensure that the hours spent in studying the subjects in the regular schools are allocated the same time as that of the secular school. Furthermore, the students were also required to involve themselves in extra-curriculum activities. With this insight, it means that the students that are taking the madrasah classes are overloaded compared to the students that are in the regular schools. As such, there are cases of lack of concentration by

both the students and the teachers, which is a negative attribute. An informal conversation was even captured in August 2009 where a student was found to tell the teachers of the nature of the situation, they were in. the student said, "We are so tired here, Sir. We have to wake up at 5 am and be at school at 6 am for extra lessons in the morning. We will not get home until 5 pm because from 1 to 5 pm we have religious subjects. This is a full-day school, Sir."

The madrasah is considered to be significant in the education sector, especially due to the society it aims to serve. This includes the fact that some of the children come from some of the poorest backgrounds in the region and from lower social-economic groups. There are thus some agencies that have decided to devote their funds to developing the madrasahs in Indonesia. Another issue is that there a number of private individuals who have taken part in offering the same program and the economically low individuals are left at a disadvantage which makes it more the reason as to why the non-governmental agencies are taking part in supporting individuals from the region. This is however affecting the quality of education to the students in the public sector given the fact that the teachers that are highly skilled are flooded in the private sector.

10.5. SCHOOL REFORM AND DEMOCRACY IN TAIWAN

In less than 15 years, the country of Taiwan has been able to advance from the age of authoritative ways of life to a democratic way of life. There was actually an election that involved the use of the ballot in the year 2000, which led to the transfer of leadership from the Kuomintang, which was a ruling for 55 years. The largest opposition party was the one that took power which was the democratic progressive party (DPP). It was actually the party that advocated the independence of Taiwan from the Chinese mainland. The head of this regime was Chen, who is the first native Taiwanese citizen that actually came from the opposition party. He became the president of this formidable country after everything the country had gone through in its previous ruling (Synott, 2017). Tension was marked by the speech that this individual gave during his inauguration, there was a new political entry in the country. He himself without the fear of being criticized, declared independence of the country. Remembering that this was the era in which the military were in charge of the country and was fared even by the political leaders. In the current society, Taiwan is recognized as a democratic country

without nationhood given the fact that this is actually impossible. It is however recognized by the international community as a country on its own path.

The dilemmas that are experienced in the Taiwanese educational reforms reflect the struggles that the country has had towards localization, democracy, and their fight towards having a national identity and being identified as a country by the international community. The education development in Taiwan was integrated into the economic needs of the country between the late 1980s and 2000. Social and political development are with no doubt among the sectors that have been integrated with the education system of the country. In the current society, Taiwan is known for its diversified economic, cultural, and educational links with as many countries as they could be able to have the reforms with. The aim of having an integration with the countries in the world was to help in breaking the diplomatic containment that it had by the PRC. The introduction of the educational measures by Taiwan was majorly to help the country rise to the challenges of economic globalization. The country has taken charge to allocate the necessary resources to the transnational skills that the students need to possess. Some of the skills include foreign languages and information technology which will help the country move to a new era given the always-changing city. This will help the country adapt to the changes of the world, including the technological changes.

To fully understand the educational reforms in Taiwan education includes its integration with the economic and the socio-political forces. The issue is that these forces tend to interact with each other and in turn tend to produce some form of tension in the school curriculum that has been developed by the relevant stakeholders. Some of the tensions that come into play because of the interactions of these forces include the increase of students' burden in learning foreign languages on top of their need to learn the national language and the indigenous languages. Another challenge that is experienced due to the same includes the conduciveness of socio-economic conditions to democratic development which actually considers how the society can be moved towards a democratic era rather than looking at how education and be reformed (Silova et al., 2007). All these three factors need to be explained in an in-depth manner but have proven to be quite difficult to be explained in the globalization literature. According to research, the tensions that exist in Taiwan that have been brought into play by the three forces tend to go against the convergence effects that were brought about by globalization. Such convergence effects include the trivialization of democracy and freedom,

the dissolution of national borders, the undermining of local or indigenous identities and cultures, and the diminution of the role of the state in terms of them having the part of making the decisions for the country as a whole.

These cases can however not be seen as a resistance to the globalization era as was when there was the development of the new forms of parochialism. Some of the other cases that were seen to bring about resistance to globalization include demonstrations during inter-national economic summits or forums, religious or national chauvinist movements, and the resurgence of ethnicity.

The transformation in the socio-political and economic sectors in Taiwan was brought about by the transformation in the education forum. In order to consolidate, manifest, transmit democratic ideals and respect the ethnic differences and culture, education needed to be an arena for the development of the new national identity. As the country of Taiwan grew did the education system also grow. A policy was even introduced, that required all nine-year-old children to be in school. In the 1980s and the 1990s, higher education and secondary education systems were introduced. The enrollments of students in school also significantly increased. Furthermore, the education expenditure was seen to expand showing the high enrollment by the children. Apart from the quantitative growth of the education system, there were other advancements that were witnessed (Ryan et al., 2010). There was the reallocation of power between the society, the education sector, and the state while at the same time pursuing national identity. The central and the local governments were the ones that took charge of the education system. The ministry of education for instance was in charge of setting up the curriculum and describing the contents that needed to be included in the textbooks. In the 1980s, however, the government decided to allow its control on the education sector to be shared by the other sectors. This led to the strengthening of the education sector. Since then, civil society has become more empowered as education has become less dominated by the state. It has become more self-determined and open to other agencies.

The chapter shows how there have been reforms in Japan, Indonesia, and Taiwan. This is a good reflection of the reforms in the schools in Asia and the democracy that have been put into play. More students have had the ability to enroll in schools, most if not all stakeholders have been given a chance to bring forth their decisions to ensure the success of the school systems (Rose, 2009). There has also been supported from the international agencies which have led to the development of the same.

Chapter 11

Education Trends in Asia

CONTENTS

11.1. INTRODUCTION

Asia, which is home to nearly 60% of the planet's population, is distinguished by a wide variety of diversity that encompasses virtually every facet of life, whether geographic, socioeconomic, ethnic, diplomatic, or developmental.

There are countries with large landmasses (China and India) as well as tropical island countries in large, vast ocean regions in that part of the world (the Maldives, for example). Countries with the highest populations (China—nearly 1.3 billion; India— just over 1 billion) and the fastest-growing megacities, as well as states with comparatively small populations (Bhutan, 600,000), are all located in the area (Brock and Symaco, 2011).

The levels of economic development also vary widely, with some of the richest countries (such as Japan) and some of the poorest countries on Earth (such as Bangladesh). Some of the major education problems currently facing mankind are evident in the region. For instance, there are estimated to be 625 million illiterates in Asia: 71% of the world's total, of whom 64% are women and girls.

A number of the inequalities in Asia are especially concerning. For context, the literacy rate in South Asia is 42%, relative to 72% in East and South-East Asia, and the average life span in South Asia is a whole decade compared to their neighbors in East and South-East Asia.

Around 74 million children (aged between 6–11 years) in Asia are not enrolled or participating in primary school education out of the world's 132 million children (or 56% of school-aged people). At least one-third of those who register leave or quit before the primary loop is completed. There are strongly influential and well-known causes for this: poverty, social inequality, socio-economic gaps, urban/rural inequalities, systemic, widespread mismanagement, and lack of proper programs for schooling. In addition, the image seems to be exacerbated due to gender differences, with girls, mostly in Southern Asia, being about 46 million out-of-school children (62%).

Despite these obstacles and difficulties all the nations of Asia and the Pacific agree that greater efforts need to be made to increase the consistency, efficiency, and importance of education and education is paramount in order to achieve poverty reduction, sustainable human growth, fairness, and equality in all aspects (Lim, 2016). Governments in the area, particularly developing and underdeveloped countries are paying growing attention to the reform and restructuring of education and schooling (Figure 11.1).

Figure 11.1. *State of education across Asia.*

Source: https://www.adb.org/sites/default/files/publication/29072/devasia10.pdf.

In the history of education, there have been three main philosophic religious traditions: Hinduism (including Buddhism), Islam, and Confucianism represented, and expanded the reach and the doctrines (including Neo-Confucianism). These traditions have engaged over time with each other, intermingling, but the relationship was not always reciprocal and cultural differences between Southeast Asia, East Asia, and the different areas of South Asia have not been blurred. In fact, since the third century BC, Buddhism had pervasive control over East Asia; the primacy of Confucianism has never been substituted. Likewise, though Islam has invaded India since the 8th century BC, the Hindu culture that was traditionally founded there remains largely unchanged.

In a medieval area, Southeast Asia, Buddhism and Confucianism were inspired, leading to an unusual combination of education. As Western culture entered the area, the experiential learning of the Asia experience underwent a general turnaround which produced an unknown degree of uniformity since the 18th century (Lee et al., 2013). However, regional heterogeneity remains

evident, representing political divisions, cultural traditions, and economic prosperity, making it difficult to provide a detailed analysis of education within Asia.

For this aim, the debate will mostly concentrate on educational activities in Asia, where the data is readily available and, above all, credible in order to explore the ideological complexities embedded within those areas and the effect from with some reference to historical changes.

This historical overview will better help us understand the contexts and meanings of education trends in Asia.

11.2. SOUTH AND WESTERN ASIA

South Asia is noted for its cultural and linguistic diversity, which is inspired by its geography and terrain as well as its culture. While the Deccan Plateau separated the subcontinent into north and south, two invasions, the first by the Aryans (c. 1500 BCE) and the second by Turkish-speaking Muslims (from the 8th-century c.e. on), exacerbated this split, resulting in centuries of social and political unrest among different ethnic groups. These invasions have cultivated a sense of political unity, although only briefly, that allows some features of traditional Indian educational practices to be identified.

Ethnic and cultural harmony was apparent in North India, for example, where the Aryans ruled. During the Gupta period (300–c. 500 CE), classical Hindu culture and education flourished, as evidenced by Vedic learning and other Sanskrit literary works. Due to the sacred aspect of Vedic study, which was the mode of advanced education in Hindu culture, it was only taught to Brahmans or Hindu priests. Even under Muslim rule, this condition remained consistent over the years.

The Kshatriyas (which means "protector of gentle people;" they were the rulers and warriors) and Vaisyas (traders, business people, and farmers) were the two groups below the Brahmans who were required to attend a separate form of schooling where they learned basic skills in writing, arithmetic, and reading using texts written in the vernacular (Bray and Kwo, 2014). While some members of these castes studied above the elementary stage, they were generally limited to fields other than Vedic studies, such as medicine. Women and the lower class, the Sudras, were not allowed to attend formal education, though there were still exemptions.

Prior to the arrival of the British, India was unable to establish a formal educational structure due to its strict social order, including the caste system,

and varied cultural customs. As a result, educational programs for building a school and hiring its teachers were often driven by a single class or group. Most schools only employed one teacher, and although the majority of them were Brahmans, their credentials differed considerably. Land endowments funded affluent aristocratic communities' schools and teachers' wages, while student fees funded less wealthy social groups' students.

Teachers, or gurus, were generally held in high regard by their students and the community (like many Asian cultures) partly because the teacher-student relationship mirrored Hindu society at large, especially the social order, and partly because of the way education was imbued in the institutions. Oral learning featured prominently in the teaching practices, perhaps because the Vedas (large body of religious texts originating in ancient India) were passed down orally for several centuries before being written down. In reality, the term Veda comes from the Sanskrit word Sruti, which means "heard from the guru," and Vedic teachers needed their students to repeat what they had heard orally for better recall. Oral teaching was also used for spiritual and cultural purposes. The Brahmans were able to fascinate and monopolize Brahmanic education while maintaining and safeguarding their social privilege because literary texts were not readily available to students.

Also, within the Brahmanic tradition, the themes taught differed depending on the time period. The study of Nyaya, or logic, flourished as a result of the Buddhist philosophical challenge. Buddhism has an effect on Indian education in a variety of ways. For example, its egalitarianism enabled representatives of the non-Brahman groups to become teachers. The Buddhist focus on writing was expressed in different stages of school curricula. Similarly, the Indian educational culture incorporated Islamic ideologies. The Hindu emphasis on oral instruction matched Muslim education, which is heavily verbal and oral and focused on recitation and memorization of the Koran. Muslims, like Hindus, respected person-to-person wisdom transfer, which consolidated Hindu culture's conventional guru-disciple relationship (Figure 11.2).

Figure 11.2. *Cultural challenges; Arabic language and Islamic values education is offered in selected public schools in the Philippines, where Muslims are the minority. Among the challenges facing educators in the region is the wide diversity of students.*

Source: https://www.adb.org/sites/default/files/publication/29072/devasia10.pdf.

11.3. EAST ASIA

In comparison to the varied progress of education in South Asia, the history of education in East Asia was largely concerned with the development of Confucianism, though there were differences and vagaries. Though Confucius (c. 551–479 BCE) is widely accepted as ancient China's first teacher, he had several rivals both before and after his lifetime. As in India, oral teaching was the primary mode of learning in China, as shown by the Analects (The Analects of Confucius is an ancient Chinese book composed of a large collection of sayings and ideas attributed to the Chinese philosopher), which document Confucius' conversations with his disciples (Kosonen, 2005).

Confucius is such an important figure when discussing education norms, trends, and dynamics in Asia with the Analects; however, on the other hand, he is also credited with assembling the Six Classics. These Classics and their commentaries were the primary texts in China's education system, which included a state university, during the Han era (206 BCE–220 CE), when

Confucianism was developed as the official national philosophy. These texts are the dynastic ruler's way of attempting to centralize the educational system. Although each village sponsored its own schools and employed its own teachers, imperial China's educational system was remarkably uniform.

Teachers instilled wisdom and basic principles in their students by using these texts and variants in an attempt to train at least some of them for government positions. Following the creation of the civil service examination system, which enabled any successful pupil, regardless of social background, to join officialdom, this trend grew during the Sui (581–618 C.E.) and Tang (618–907 C.E.) times.

The Tang dynasty patronized Confucianism, Buddhism, and Daoism (an original response to Buddhism's challenge) while also integrating certain Buddhist components into its traditions, but not necessarily at the same time. Confucianism was influenced by Buddhism as well. Tang scholars, inspired by Buddhism's focus on lineage in wisdom transmission, established major leaders in Confucian chronology in order to counteract the intrusion of Buddhism and Daoism and preserve traditional Confucian ideology and doctrine.

The Song time (960–1279 C.E.) saw the continuation and expansion of the restorationist campaign, which was characterized by the emergence of Neo-Confucianism. The Neo-Confucians, such as Zhu Xi (1130–1200), set out to improve education by providing a new set of documents, the Four Books, as well as creating a new model of school, the academy. Mengzi (c. 371–289 b.c.e; stylized as Mencius by the Romans) was canonized, as were some quotations from the original Confucian canons, which Zhu described as the core of Confucian instruction, and Zhu's collection of the Four Books expanded the restorationist mission of transforming the Confucian legacy (Knight, 2012).

From this time on, the rise of academies offered a new forum for pupils, augmenting one-teacher village schools and state-run colleges and universities. However, this reform has no effect on women's education. Chinese women, like their Indian counterparts, usually received only a basic education at home, preparing them to be successful wives and mothers. Outstanding female writers and poets, on the other hand, appeared in history; for example, Ban Zhao (c. 41–120 C.E.) often advocated for the importance of women's education.

Neo-Confucianism solidified its status as the main intellectual ideology during the Ming (1368–1644) and Qing (1644–1911) eras, thanks to the

establishment of civil service exams. Neo-Confucianism met numerous rivals and opponents as it spread outside of China and became the conventional philosophy of Korea and Japan. By the 18th century, a new philosophical movement emerged across East Asia that sought to supersede the Neo-Confucian rhetorical structure and restore the doctrines of ancient Confucianism, thus sharing the Neo-Confucian restorationist ideology.

This movement stressed practical expertise and scholarship, with the latter distinguished by an attempt to use historical and philological approaches to determine the validity of Confucian texts and the factual accuracy of their contents. Much of this had a major effect on Confucian education's aims and practices (Figure 11.3).

Figure 11.3. *"We're Number One"—an elementary school student in the province of Anhui in the People's Republic of China raises her hand. Nine out of 10 children in the region are now enrolled in primary school.*

Source: https://www.adb.org/sites/default/files/publication/29072/devasia10.pdf.

11.4. SOUTH EAST ASIA

As education in East Asia experienced significant changes due to the waxing and waning of Neo-Confucianism in the region, the British initiated a more dramatic transition in South Asia by the end of the 18th century. The British

instituted new schools, originally for the purpose of educating interpreters and potential government officers, after undermining the native educational system by both economic and cultural methods (King and Guerra, 2005). As a result, the bond between students and their families was broken, and the conventional target of education in South Asia was shifted. The British added to the divide between the educated class and the ordinary people by teaching English in such classes and schools.

Slowly, by the mid-nineteenth century, the British had developed a consolidated educational system in South Asia for the first time in history. It was made up of three levels of schools, which we are familiar with—elementary, middle, and college—that were supposed to bridge the religious and ethnic divides in the community. From the mid-20th century onwards, this arrangement was largely maintained until countries in the region started to gain independence. In reality, in the early 21st century, it was the educational standard across Asia.

11.4.1. Modernization

Japan was the first country in East Asia to implement new educational reforms. Following the Meiji Restoration of 1868, the government dispatched a party of distinguished officials to travel across Europe and America in order to obtain firsthand experience of contemporary Western social, political, and educational structures. The Meiji government implemented a number of educational reforms, including the formation of a ministry of education, compulsory primary education (which was applied to women), and the founding of a national university, Tokyo University, which was housed in a reconstructed state school that had previously been dedicated to Confucian studies.

China, on the other hand, stalled behind Japan in adopting educational reform as the very first nation to challenge Western forces in East Asia. In response to the Western challenge, the ruling Qing dynasty founded a few translation schools and sent a few clusters of graduates abroad, but China seems to have lacked the ability to implement more systematic educational reforms for the majority of the nineteenth century. The dynasty, as well as Chinese scholars, did not understand the importance of modern education until 1895, following its humiliating defeat by Japan in the Sino-Japanese War (1894–1895).

Following the war, China saw a brief period of political change, which included the establishment of a new university, the Metropolitan University,

which is now Beijing University, in 1898. As a result of the vast number of students who went overseas to pursue a western education, the majority of whom went to Japan right next door, the country set on a swift course of educational reform (Kirkpatrick and Liddicoat, 2017). The thousand-year-old civil service test was scrapped in 1905, opening the way for a new educational system to be established. With this shift came a once-in-a-lifetime chance for Chinese women to attend formal schooling (Figure 11.4).

Figure 11.4. "*Waiting Game"—parents wait anxiously outside the high school where their children are taking the entrance exam. Students in the People's Republic of China aspire to enter top-quality high schools in preparation for a nationwide college entrance exam, regarded as one of the fiercest academic competitions in the world.*

Source: https://www.gettyimages.com/detail/news-photo/parents-wait-anxiously-outside-beijing-luhe-high-school-for-news-photo/450318590.

Overall, from the late nineteenth century onwards, the structure of western schooling took hold in much of Asia. It eventually developed into a unified structure around the globe, with a remarkable similarity to the present Western world. Meanwhile, it reflects the disparate contributions of the region's religious and cultural values, as well as political philosophies, in its beliefs and activities.

11.4.2. Some Key Educational Issues in the Region

The rate and scope of education growth varies greatly across Asia, with countries having the task of setting practical goals and addressing particular

issues most important to their needs and development. At the Second Meeting (organized by UNESCO Bangkok on 8–10 November 1998), the Intergovernmental Region's Committee on Education in Asia and the Pacific countries pointed out that:

- The delivery of basic formal education programs, with a focus on the needs of vulnerable and underprivileged communities such as children, adults, immigrants, migrants, the poor, and special needs students;
- Increased civic involvement, including school and training establishment ownership;
- Development of effective education policy and systems for poverty eradication;
- Improving the quality of education and learning outcomes while still increasing access to education and educational opportunities (Kapoor, 2009);
- The importance of teachers as agents of educational advancement and social reform should be emphasized more;
- Application and diffusion of emerging information and communication technology (ICT), including the development and use of local applications and increased Internet access;
- Increased focus on the needs of the youth, particularly in terms of addressing their academic goals in terms of delivering a high-quality, appropriate, and integrated secondary education, as this is a critical component of social and economic development;
- Allowance for religious education, which includes foreign and values education;
- Development in higher education, since, while growing access and participation in basic education represents a significant problem for many nations in the area, more advanced countries' continuous productivity gains and technical development necessitate increasingly complex education and training, even at the tertiary level.

The importance that different countries put on these issues is determined by their level of growth and government goals. Furthermore, even as countries make strides in improving and updating their education systems in places like the ones listed here, it is unclear if the progress is significant enough in reach and complexity to be sustainable. Though all of these fields

of education are relevant (to varying degrees) to Asian countries, education for all (EFA) is receiving particular attention at the moment (EFA).

This is embodied in the reality that, over the last 2 years, 44 Asian and Pacific countries have collaborated with numerous UN agencies to compile detailed national evaluation reports on the development and status of education in those respective nations in the geographical area. The findings of the EFA 2000 Assessment, as it is known, are ambiguous, indicating both positive and negative developments in education in the area.

Basic education resurfaced on many Asian country's government main priorities and in the minds of the general population following the landmark World Conference on EFA in Jomtien, Thailand in March 1990. This lobbying resulted in the expansion of regulations, programs, and initiatives, as well as an improvement in budget utilization in the early 1990s.

However, despite all of the awareness and appreciation, and all of the programs, funding, and events that resulted, the anticipated outcomes were not completely realized. Many of the region's countries, on the other hand, also have some of the best literacy rates in the world, proving the success in this endeavor.

Even in countries with high enrollment rates, compulsory primary education remains elusive. The disparity in girls' and boys' schooling, as well as male and female literacy, continues to be a major issue, and finding additional funding to meet the inevitable rise in demand is proving difficult. In the first half of the decade, data from Asian countries revealed an almost exclusive reliance on the structured primary structure. However, in the last five years, the Jomtien Conference's extended view of EFA has begun to take shape.

The ability to education in Asia has improved dramatically, but there are ethnic segments in Asia that have significantly less educational resources than the global averages. Women, the poor, migrant peoples, ethnic minorities, those who do not speak the dominant or official languages, those in nomadic communities, the disabled, children with HIV/AIDS, and children in war zones are among those who are less educated (Jensen, 2012). Children with many risk factors are significantly less likely to attend kindergarten. Bad, rural females, for example, are far less likely than the general population in the countries shown below to have at least four years of schooling.

Even in countries where access is still a big issue, there is a significant change in emphasis from schooling to learning. Enrolment for All is not the same as EFA, as more people are beginning to realize. This has two important

ramifications. For starters, it means that the traditional curriculum will not be able to meet all learning demands and will need to be supplemented by non-formal, customized learning approaches. As a result of this concept, countries such as Indonesia, the Philippines, and India are engaging with structures that enable non-formal program attendees to cross into the formal framework laterally.

In the Philippines, for example, as the non-formal sector becomes more systematized, the formal sector becomes more open or less rigid, introducing mother tongues in the early years or adding an 8-week pre-school kit at the start of the primary period. Second, enrolling children in a comprehensive curriculum does not ensure that their educational needs can be fulfilled. According to recent performance test results, an unprecedented number of students who have been schooling for three years or more have not learned the fundamental skills of reading and writing.

Policymakers are now gradually overcoming their erroneous distinction of quantity vs. consistency. When resources are small, it is always necessary to choose between more textbooks and services for those already in school (quality) and more buildings and teachers for those who have not yet entered the system (quantity). In Asia, the push for universal primary education has appeared to favor quantity over access or quality. However, some countries in South Asia, for example, have indicated that having more schools does not always imply that students are better educated. This is due to poor participation and retention when the school is seen as irrelevant or of low standard (Burchinal et al., 2010).

Surprisingly, focusing on consistency increases quantity; the safest way to ensure increased and sustainable school enrollment is to have qualified and inspired teachers, sufficient instructional resources, and, most importantly, curricular content that satisfies the demands and desires of local populations.

Almost every nation cites financial capital limitations as an impediment to growth. However, there is a shift of emphasis here that was not apparent a decade earlier. Rather than focusing on ways to get more money to do more of the same, the focus now seems to be on how to make optimal use of the money that is currently available. Any of the reasons that propel or stymie development toward the aim of universal education have socio-cultural origins. On the negative hand, mistaken or ignorant perceptions of a particular subculture's aspect can stymie the drive for girls' education as well as attempts to educate racial and religious minorities. On the better hand, the profound emphasis placed on schooling, reverence for ancestors,

sages, and teachers, the central position of the family, and the tacit belief in the significance of educating the coming generation is shared by all of Asia's great societies. This explains why, after the global downturn, East Asia and Central Asia continue to have high levels of involvement, despite government defeats in their transition to a market economy. These socio-cultural considerations must be considered when planning an action plan for the next 10 years.

According to the findings of the Asia-Pacific Education Assessment, if the goal of universal primary education is to be achieved, national budgets must make massive, exponential leaps in expenditure to primary education, multiplying or even tripling this allocation within a few years; the responsibility for funding basic education must change, with all its drawbacks, to communities, the public, and private education bodies, religious factions, NGOs as well as the parents and overall community. Informal education systems will have to be structured to take on a more direct and intimate role in the public education sector.

An improvement in primary school education system architecture is needed that effectively reduces the cost per pupil to a fraction of what it is now.

The Jomtien Conference 10 years ago proclaimed to the world that EFA is required—as a basic human right and a necessary component of prosperity and peace. Via glimpses of progress in various countries over the last decade, the world has seen that EFA is still feasible. With all of its nuances, the thrilling decade ahead makes EFA more critical than ever, and it is time to convince the world that it is not just essential and plausible, but also imperative and practicable (Butler, 2015).

11.4.3. Problems and Trends Observed by UN Bodies (UNESCO/UNICEF) on Education in Asia

Governments, education policymakers, and professionals are currently addressing these issues as they aim to reengineer their education programs in order to promote sustainable human growth and development, reducing poverty, and justice in all ways by enhancing the consistency, significance, and efficacy of schooling.

Jim Irvine, the UNICEF (United Nations Children's Fund) Regional Education Adviser for East Asia and the Pacific, shared, and discussed the latest trends and changes in UNICEF's strategic outlook with respect to achieving universal basic education in South Asia. As previously said, South

Asia has the lowest literacy rates and life expectancy in Asia, and it is also home to the bulk of the continent's poor. South Asia has unique challenges when it comes to access to basic education: There is a lack of funding for basic education, and other issues (exacerbated by feudal, authoritarian, and imperialist legacies that promote sexism, corruption, repression, and patriarchy) impede the realization of women's and children's rights and such issues have resulted in a massive rethinking of UNICEF's plan for achieving EFA.

Women and girls are the single most vulnerable population when it comes to lack of access to high-quality and equitable services in the fields of education and social care, so ensuring gender equality is of particular significance in the country. Even where educational opportunities exist, poor women and girls are often given an education that demotivates them. Obtaining the expertise, skills, and understandings required to achieve a genuine improvement in their economic and social status often serves no useful purpose for them. If anything, this has been observed to be the single most detrimental trend in the Asian education world.

Another UNESCO report explores the challenges of gender equality and the main roadblocks that actually exist in India, making gender equity a daunting goal to accomplish. The Lok Jumbish Project in Rajasthan, which has been active in fostering practical literacy among teenage girls from poor agricultural communities, has made significant progress in this regard.

As a result, this campaign has been successful in implementing steps to mobilize the people, especially women, so that they can focus on and analyze their current situation and, as a result, advance in a coordinated and efficient manner toward empowerment through education. If this project was taken as a case study, it would show that women's equality and positive steps toward gender equity and justice through education are feasible and can be sustained in a cost-effective manner and not only that, it would show the value of EFA (Choi and Lee, 2008).

Finance and funding are one of the major issues that policymakers have when they consider expanding formal schooling to ensure universal access to high-quality education. Many of Asia's economically developing countries are battling an immense debt burden and the pressures put on their scarce resources to boost their people's social and economic well-being. The issue of "restricted revenue" but "boundless economic wants," along with political preferences, is a fact that often results in inadequate funds being allocated to improve and grow educational facilities.

Because of these financial constraints, budgeting for education on national scales has become a hot topic of discussion across many nations in Asia, especially in terms of private versus public education funding. Researchers from the United Nations Educational, Scientific, and Cultural Organization (UNESCO) have looked into the issue of funding higher education in Asia. It is important to note that, as countries in the region strive for universal schooling, primary school universalization, and EFA, many are still attempting to tackle the basic problem of increasing access to and ensuring adequate standards of their education systems.

This is not shocking, given the role of education at both the primary and tertiary levels in a country's continuing economic and social growth, progress, and development.

In terms of higher education exposure, there is a lot of variation in the field. As countries in the region with low enrollment rates in higher education aim to improve access (while retaining or enhancing quality assurance), non-governmental funding of higher education has also increased. There have been a variety of schemes being used to finance higher education in various countries in the region and consequences for the stakeholders and interest groups in question.

Another UN study looked at the critical issue of childhood education from two separate viewpoints. One viewpoint contends that when students spend longer and longer stretches of time in school, the majority of the events in which they participate put them in passive positions, disconnected from the 'real world.' In terms of obtaining a career or being eligible for the national workforce, the results of these tasks are being constantly postponed (Jacob and Lefgren, 2004). Although some young people may receive these delayed results, for many others, a changing youth job market makes distant outcomes seem illusory.

As an effect, a growing number of students have become pessimistic and restless: their schools do not understand that students have valuable perspectives and responsibilities, and the impression to students is that they are unable to change the future. This perspective was particularly interesting because the paper tackles these topics by citing evidence from Australian (and other) schools where efforts are being made to give young people meaningful positions that connect them to their communities. These examples, which take place in primary and secondary schools, put students in collaboration positions as decision-makers for their own and others' schooling, and have consequences for both governance and curriculum.

The other method, developed by an Indian researcher, is included here to provide a "voice of youth" on education in the 21st century. It differs from most approaches in that it is not focused on a variety of studies or reference sources, but rather on the authentic viewpoint of one young person on recent educational and schooling trends. This viewpoint is especially relevant to the ideas and vision expressed in the International Commission on Education for the 21st Century's Report to UNESCO—The Delors Report (Delors et al. Learning the treasure within, Paris, UNESCO, 1996).

The final UNESCO report, we will look at points at the problems that education faces in a globalized world, as well as the growth and increasing use of modern ICT. It is important to note that while the ITCs that have swept Asia over the last decade have yielded rewards, they have also led to increasing the divide between rich and poor, empowered, and oppressed people, both inside and between countries in the region. The study urges us to reconsider the partnership between emerging information technology and conventional education in order to ensure that ICTs are more successfully used to aid in the achievement of economic growth, poverty alleviation, and equality in all areas by enhancing the consistency, relevance, and efficacy of education and schooling (Huang, 2007).

Since the Asian region is so vast and complex, there are a plethora of educational topics that matter to the region's millions of people, thousands of cultures, and dozens of countries. It is impossible to cover all of the issues that are catching the interest of certain individuals and organizations in the area.

11.4.4. Statistics in Asian Education to Identify Trends

In terms of education, Asia is a worldwide success story. While statistics vary by area, 9 out of 10 children in the area are enrolled in primary school today. Experts agree the success has been nothing short of extraordinary for a continent that housed two-thirds of the world's out-of-school children as recently as the 1970s.

However, once countries are forced to go beyond the fundamentals to attempt to meet students' demands for skills that translate into decent work, the shine wears off the apple. This statistic reiterates the point made earlier on the quality of education dropping to give the highest quantity of students' education.

While much strides have been taken in the last 10 years, metrics continue to point to severe education and human-resource trends and hence

shortages at all levels throughout the area, a fact that could dampen Asia's lofty economic ambitions if the trend continues.

Classrooms must cater to an employment sector that in many countries needs increasingly technological and information technology-based know-how, experts add, in today's globalized work world, where rivalry comes from overseas as well as the next workspace (Cummings et al., 2014).

Higher-skilled demographics would be critical for Asian countries looking to stimulate and further accelerate development. According to Shanti Jagannathan, an education specialist with the Asian Development Bank (ADB), "Education and training will be at the center of maintaining the economic growth and resilience of the Asian economy" (ADB). "A ton can hinge on how curriculum and training programs are managed, as well as how quickly they will adapt to changes," says one expert.

Job opportunities attract a large number of people to suburbs, where training opportunities are often inadequate to train them for the job market. The influx of unskilled labor from rural to urban areas in the People's Republic of China (PRC) is reported to be approximately 10 million a year. South Asia is seeing a mass exodus of people under the age of 25 pursuing education or face a prospect of unemployment. Human capital is a critical component of economic growth, but in many countries, access to high-quality education—from primary to secondary and tertiary—is lagging behind. As a result, a lack of education actually transforms into a shortage of qualified labor. A scarcity of qualified labor dampens industry development ambitions, ultimately jeopardizing countries' development prospects.

In the 20-year drive to enroll all children in primary school, quantity has always trumped consistency. In certain situations, even after children reach one stage of education, their minimum proficiency is insufficient to tackle the next level. As a result, an increasing number of basic education graduates are graduating without marketable skills—that is, skills that can be applied to work. Although Asia has a growing number of emerging economies with high demand for skilled labor, the country is also experiencing a wider difference between educational production and labor market requirements than other developed regions (Horie, 2014).

"Because economic conditions are changing, more capital and creativity are required to increase the quality of education at all levels to satisfy the expectations of the labor force," says Jouko Sarvi, ADB practice leader and chairman of the education Sector committee. "There is often an expertise imbalance between labor market demands and the types of graduates

graduating from schools. This results in an economic and social bottleneck, limiting expansion.

Creating tertiary education centers is often quoted as a way to boost a country's growth, and the appetite for higher education in many Asian countries is projected to double in 5 years and triple in several nations in far less than a decade. Other forms of education, such as basic adult education, such as literacy and numeracy; vocational training, such as retraining employees in specific sectors especially declining ones, and upgrading the skills of those starting new businesses; and on-the-job training, which allows workers to continue learning while on the job, particularly in high-tech fields where skills can quickly turn irrelevant.

Countries must consider the spectrum of education and how they can enact holistic changes to address the problems that each country faces, whether they are economic or social concerns. Nepal's issues are distinct from those faced by Viet Nam, for example.

Primary school is the cornerstone of every education framework, and the consistency of this foundation determines achievement at subsequent levels in 1990, at the World Conference on EFA in Jomtien, Thailand, an international push for compulsory primary school enrollment was launched.

Representatives from 155 countries and 150 associations committed to "universalize basic education by the end of the decade" and "greatly eliminate illiteracy." The UNESCO spearheaded education for everyone as a worldwide movement. The right to basic education has been deemed a fundamental human right (Ho, 2014).

In 2000, the international community gathered in Dakar, Senegal, to discuss development a decade later.

Although the results were mixed, it was obvious to the 1,100 stakeholders that many states were already a long way from achieving the lofty targets set in 1990. With the goal of addressing the learning needs of each and every child, teenagers, and adults, including females, by 2015, a revised series of six achievable goals was set, including free and compulsory primary education, raising the adult literacy rates, and promoting gender equality.

In the same year, at a meeting in New York, all 189 United Nations member states agreed on the millennium development goals (MDGs). These were a set of 8 sustainable development targets to be met by 2015. Goals 2 and 3 were directly targeted to promote universal basic education and eliminate gender disparities between primary and secondary education. In

2002, the Fast-Track program was initiated to help emerging nations drive their development by supplying funding, trainers, and resources to help them reach primary school MDGs in collaboration with donor countries and agencies, including the World Bank, ADB, and the UN (Hayhoe and Li, 2008).

As a response, between 2000 and 2004, aid to emerging economies in Asia for basic education almost doubled, from $2.6 billion to $4.4 billion. In the 1970s, the area had two-thirds of the globe's out-of-school kids; today, it has less than one-third. By 2006, East, and Southeast Asia had achieved the greatest progress toward compulsory primary education on the planet, and this was largely attributed to the fact that primary school attendance in the Peoples Republic of China had risen from 20% to an incredible 97% by 1990.

Many of the most significant gains were achieved in countries that began at the bottom even by global standards: Bhutan went from just a small number of schoolchildren to just about half of all its children pursuing a five-year education. The Maldives had a 90% attendance rate. South Asia, as a region, not only achieved 90% attendance, up from 72% in 1991 but also saw the largest strides in gender diversity, with 95 girls enrolling for every 100 people, up from 77 in 1991. Despite the progress, 18 million children in South Asia are still out of school, accounting for very nearly a third of the global figure.

In fact, despite the amazing numbers, enrollment rates in many countries and especially rural areas are much lower and not growing markedly: Afghanistan and Pakistan both have total net enrollments of less than 60%, while Bhutan and Nepal have net enrollments of less than 70%.

Even with 90% average enrollment across Asia, 25 million children still do not have access to primary education. Racial groups, minority populations, immigrants, poor families, the disabled, homeless youth, and girls are among those who are often left out.

Universal primary education is described as the act of placing children behind desks without considering how to hold them there. As a result, there are a lot of dropouts. (It is not compulsory to attend) Just 7 out of 10 children in developing Asian countries complete primary school, and only 4 go on to complete secondary school. Poverty is a significant factor in dropouts: in rural communities, children are often required to labor in order to help their families survive. Adjusting school holiday dates to coincide with harvest seasons and scheduling adjustable school hours for working children have

also been attempts to keep them in school (Hawkins, 2012). Any households are given preferential cash transfers, which are payments made directly to the parents—usually the mother—under certain conditions.

Food and nutrition present an incentive and an opportunity for children to remain in school, and it allows parents to help feed their growing, school-aged children. Nutrition and calories are provided by food-for-education services to help children remain alert and make success in learning. Some services provide take-home rations to help alleviate a child's absence from family responsibilities. In 2005, food-for-education projects in 74 nations, including the Lao People's Democratic Republic (Laos) and Nepal, surpassed 22 million children worldwide in collaboration with the World Food Program and other agencies.

Another major problem confronting the area is the decrease of teacher pay in recent years, as well as the low prestige of teachers, which has made teaching less appealing. Less than 80% of teachers in Bangladesh, the Kyrgyz Republic, Laos, and the Maldives have received formal training.

Under this difficult landscape, many countries in the region are working hard to achieve gender balance, with vigorous drives, initiatives, and campaigns to bring girls into primary school (females account for 64% of the world's adult illiterates). In primary school, girls have a greater capability of recall than boys, but they are less common in terms of attendees in secondary school. In some parts of the region, up to half of the children who finish primary school become functionally illiterate, obstructing their opportunities for further education and jobs.

Flexible curricula and alternate paths should be accessible so that high school dropouts can still develop skills that will allow them to be active members of society.

Although some nations, such as Bangladesh, Laos, and Nepal, are still struggling with universal basic education, the Republic of Korea is on the other end of the continuum. The country has made significant investments in education, boosting its economic competitiveness and social integration, and climbing to the top of global educational success indexes. Hong Kong, China, Singapore, and, gradually, Malaysia is in the same boat.

Every year, the Organization for Economic Co-operation and Development (OECD) assesses the quality, equity, and productivity of school systems in 70 countries, accounting for 90% of the global GDP. They run the Program for International Student Evaluation (PISA), a test for 15-year-old students around the world that provides a globally standardized

testing platform for countries looking to improve their educational systems. For years, the Republic of Korea, Singapore, and Hong Kong, China, have dominated PISA ratings, which assess math, scientific, and reading abilities (Hallinger and Lu, 2011).

The PRC, which has a 96% primary school retention record, took part in PISA for the first time in 2010 with 5,100 students from the Shanghai district. To everyone's surprise, China came out on top in all three divisions by a large margin, beating out the Republic of Korea and Finland, who have historically been the top performers.

Experts point out that Chinas high scores are most likely attributed to the fact that only students from progressive, wealthy Shanghai were studied. The outcome would most likely be somewhat different if a random survey of all Chinese students was taken. Nonetheless, the results show that the PRC is attempting to become a regional educational pioneer.

Many claim that these numbers do not actually represent a strong basic education scheme, but rather a large "ghost" system of intense evening and weekend private tuition, which is a major business in parts of Asia, including Shanghai. Tutoring is almost non-existent in Western countries, such as Finland, a PISA powerhouse. International education specialists argue that ideally, states should have their own state-regulated testing system that monitors student learning so that it can be determined why they are not meeting competency thresholds, a system that tracks student success during the schooling period.

Rather than just exams, a method of continuous and thorough assessment is required, so that children are assessed for understanding rather than rote learning. A method of student assessment also provides guidance to administrators, allowing them to make curriculum adjustments (Chiswick and DebBurman, 2004).

"These are topics that policymakers are grappling with. How do you have programs at the state level that can handle all of this?"

Countries in Asia would have to harness their economic and political power to fund high-quality education in an attempt to explore the next step in education and concentrate on quality and inclusiveness. The area has sunk a lot of money into building schools and rapidly increasing primary school enrollment. Expanding inclusiveness, improving access to public education, especially for the poor and vulnerable, and keeping more students in higher education would all be even more costly, complicated, and difficult.

To guarantee that education is relevant to the demands of the labor market—and that good students can get good jobs—system-wide changes are needed. According to an ADB senior official, "it has been shown that merely throwing money at education problems does not succeed." Despite dramatic rises in educational expenditure in many OECD nations, test results have remained stagnant for decades. Improving teacher instruction, education, and childcare services are some of the reforms that have been fruitful and cost-effective in the past (Hashim et al., 2011).

Preschooling has the biggest effect on school completion in the Philippines, according to a new report. Incentives for pupils, teachers, and schools to do well are also important components in improving educational results. Progress can be difficult to track because accurate measurement of results necessitates the use of consistent and reliable appraisal instruments, such as national tests, which are not available in many countries. As a result, Schooling for All and other foreign reporting organizations must make do with physical metrics like the number of eligible teachers, absences, and graduation rates, overall class size, and primary education costs as a Gross Domestic Product Percentile.

The distribution system must change as ICT grows increasingly available, just as instructional models must be scalable to satisfy potential workplace demands. Technology affects not just how students learn, but also how teachers are educated and how well they teach, especially in rural areas. Instructors have only recently come to terms with the fact that machines can improve the learning experience. According to an ADB report, the use of information and communication technologies in classrooms yielded positive outcomes. Students became more engaged and collaborated better in groups; absenteeism was reduced; test scores improved; and computer literacy and communications proficiency.

Governments have traditionally funded primary schooling. It is the most cost-effective level of training, with an average 14 times lower cost per pupil than secondary education and an overall 34-fold lower cost in developed countries than university education. The relative higher education costs mean that the more developing countries broaden their post-secondary system, the more public higher education is, which is a condition that, because of budget constraints, increases access while dropping quality (Grossman et al., 2008). The higher education institutions are privately run, but the rules and provisions governing private higher education are not sufficiently integrated or inclusive of the poor.

Unfortunately, governments can easily extend the higher education system through government funding. In order to ensure that any of the best talent is not trapped outside the institution, states must find new investment solutions, including public-private collaborations.

In order to fund and manage higher education privately, the Republic of Korea provides an indication of what is feasible, with national interests in mind. "Pro-poor" private high schools offer opportunities for promising students who could not afford that standard of schooling otherwise.

The private sector is progressively assuming an important role in financial and managerial education, not only in tertiary, but also in secondary and primary education, more recently.

Government recognizes the advantages of public-private collaborations, where the public sector's nationwide educational interests are complemented by private sector capital and increased efficiency. "Education no longer concerns the primary level," says the ADB. "It doesn't pull children out of the pitfalls of poverty, giving them sustainability or track them to a more knowledgeable social position. The standard of education needs to be improved around the board."

11.4.5. Case Studies

To recruit a renowned Chinese professor of aerospace engineering who works abroad headhunters at Tianjin University recently had to go overboard to prove a point. A fair pay, top-of-line services, and other advantages were provided to the applicant (Green, 2013). But it was a piece of laboratory equipment that the professor insisted on he needed to do his research: an aircraft. The University of Sydney offered him a Cessna; small and practical, but the Tianjin University bought him a 120-seat jet.

The Tianjin University, located 120 kilometers southeast of Beijing, is being coiffed to become a major academic league by an inflow of capital, talented people, and sometimes, like in this case, an airliner.

Tianjin is part of the PRC's 211th program to transform some 100 universities, colleges, and technical institutions into prestigious higher education centers. The drive-by China in creating universities of world-class standards coincides with the nation's growth as a world economic force, but intellectual greatness expectations are shared by Asian countries of all sizes. This new trend has been recognized the world over and as globalization makes the world a small village, and parents from both the developing and

developed parts of the world send their children to study in many parts of Asia.

Some Asian students are encouraged to give up their big-name degrees overseas to study closer to home in prominent universities in the Peoples Republic of China, Japan, the Republic of Korea, and Singapore. Foreign nationals are also persuaded to give up academic positions overseas and to enter their faculties. They contribute to the spread and development of emerging technology and making the area successful by graduating highly qualified individuals.

Philip Altbach, leading expert on higher education, writes in an upcoming book, The Road to Academic Excellence: Making World-Class universities, "To participate fully in the global knowledge economy and profit from science and sciences, (nations) must have at least one research university able to function at a world-class level" (Faragher et al., 2021).

Nevertheless, Asia's quest for quality has stopped and remained unequal with poverty rampant and success in the rich countries being largely recorded. Altbach warns that even when governments set vast amounts aside, the creation of elite college "needs a lot more than capital." "You need also intellectual independence, competitive employee and student culture, and no corruption. This problem is so deep that some experts contend that Asian countries with low and medium-income would best be served if their current higher education facilities were shortened. However, the hope is still alive, of designing the next Harvard or Cambridge.

Over the course of several decades, many exceptional colleges have established a prestige. But, as the director of the University of Hong Kong's Ching Wah Research Centre, points out, many Asian countries can hardly wait so long, as their economies develop too abruptly. At the same time, increased demand for university degrees has increased in Asia for better basic and secondary education. According to some figures, half of the increase in enrollment in universities worldwide will be in India and the Peoples Republic of China in the next two decades, which still has the highest number of doctoral students in the country.

For many academics, it immediately "makes a lot of sense" to become more closely linked to the area and to become more acquainted with its cultures and language by teaching, doing research, or receiving grades in Asia. In reality, the faculties of the promising universities are now returning to employ some of Asia's brightest lights lost in the West.

Numerous Chinese intellectuals were invited to play a role in the modernization of their country. Chia-Wei Woo, the first Chinese ethnic in the United States to head an American University, left office as chairman of San Francisco State to take up a senior role at the elite Hong Kong University for Science and Technology — (HKuSt).

11.5. KOREA

Confronted with the destruction caused by the Korean War and depletion of natural resources, the Republic of Korea invested in education decades back as part of a strategy to maximize its most valuable resource: its population (Figure 11.5).

Figure 11.5. "*Under Pressure"—a student prays prior to taking the college scholastic ability test, a standardized exam for college entrance, in Seoul. Earning a college degree is a top priority for the Republic of Korea.*

Source: https://www.adb.org/sites/default/files/publication/29072/devasia10.pdf.

It had a long journey ahead of it. At the close of World War II, the adult literacy rate was projected to be about 22%.

The Koreans have a lot to be happy about today. Their literacy rate has increased to at least 98%, and their 15-year-olds' scores in reading, arithmetic, and science are at or close to the top of foreign surveys. University education is a primary focus for many Korean families, and the nation has

one of the largest percentages of university graduates of any nation on the planet (Forlin and Lian, 2008).

Citizens of the republic, though, including educators, parents, and students, have a different perspective on schooling than many outsiders. High test results have come at a premium, owing in large part to a vast private supplemental school scheme that charges the nation's families billions of dollars per year. This scheme has been so costly that many Koreans fault it in part for the country's dwindling birth rate, which now ranks among the lowest in the world, raising potential problems.

Hundreds of thousands of Korean families have advocated-showed by the volume of plane tickets—by taking their children to study overseas during their high school or even elementary school years over the years. Parents' wish for their kids to become proficient in English, a highly coveted skill in a world well aware of the need to succeed in a globalized market, is behind much of this migration.

The Republic of Korea's government is well informed of the flaws of its educational system and has worked to introduce reforms. It has aimed to enhance English language learning at home, improve Korean colleges, and foster what it called "future Nobel prize winners" to fight a mass exodus of skilled labor and ease some of the financial pressure on medium- and low-income families (Lim, 2016).

In the most recent global survey, the Organization for Economic Cooperation and Development's Program for International Student Assessment (PISA) placed the Republic of Korea first for reading comprehension, second in math (behind Singapore), and 4th in science (behind Finland, Singapore, and Japan). When schools in Shanghai and Hong Kong, China, are included—Shanghai participated in the study for the first time in 2010—the Republic of Korea falls a little. (Keep in mind the previous stated Peoples Republic of China as a whole versus Shanghais affluent wealthy schools) In all three grades, Shanghai came out on top, and in math and science, Hong Kong, China, outperformed the Koreans.

The study is focused on two-hour exams given to 15-year-olds in over 70 countries. In recent years, the findings have been a point of joy for Koreans, and they may have influenced US President Barack Obama's use of the Republic of Korea as an example in many speeches about education. For example, in his first speech on the topic since taking office, Obama called for extended school days and school years, as well as the extension of after-school services.

The country's international teachers agreed. Obama claims to have "an absurdly romanticized idea" of Korea's educational system, according to one commentator. Another blogger wrote that Obama should approach the Korean model "with way more cynicism" than he has, and in many ways this is true. Skepticism among the general population continues to be widespread. The World Economic Forum surveyed 139 economies worldwide for its Global Competitiveness Report for 2010–2011 and found that, although the Republic of Korea ranks 22nd internationally on a listing of a dozen metrics, it ranks lower in educational subsets determined by local opinion polls (Lee et al., 2013). For example, in "quality of primary education," the country is ranked 31st, behind six additional Asian economies (Singapore, Taiwan, Japan, Brunei Darussalam, Hong Kong, China, and Malaysia) and three spots ahead of the United States.

The hagwon scheme, an extensive framework of more than 70,000 private, for-profit academic institutions that educate students of all ages, reflects much of the frustration with public education in Korea. The Hagwons focus on assisting students in raising their grade point averages in traditional high schools and passing national university entrance exams so that they can gain admission to the best universities.

They are often referred to as "cram schools," and they are a secondary or "ghost" education system equivalent to Japan's Yuki (tutoring) schools, according to scholars. According to Abelmann, Hagwon students usually "study ahead" of the high school curriculum, studying the same content ahead of time. This allows them to excel in high school while still putting pressure on other families to educate their children in order to succeed.

However, a hagwon will cost up to $1,000 per child per month, and several learners end up studying for their placement exam for up to 15 hours per day, arriving home long after midnight. Educators claim that hagwons are primarily to blame for Korean students' high test results, but they also claim that the institutes have pushed many households to bankruptcy and exacerbated inequality (Kosonen, 2005).

11.6. MONGOLIA

The achievements of Mongolia's main pioneers are required reading not only for Mongolians but for students all over the world. It is also a world that has seen drastic shifts in its culture since the early 1990s and will be put to the test in the coming decade (Figure 11.6).

Figure 11.6. "*An Oasis of Learning"—Sainshand School No. 2 in the eastern Gobi Desert serves as a model for Mongolia's campaign to improve the quality of education.*

Source: https://www.adb.org/sites/default/files/publication/29072/devasia10.pdf.

Mongolia has seen rapid economic growth, but it has been hard hit by the current global economic crisis, as have many other countries. A recovery is underway, thanks to rich aid. According to Asian Growth Outlook 2010, a report of the ADB, gross domestic product increased by 5.0% in the first half of 2010, after a 1.6% decline in 2009 (Knight, 2012).

Mining, especially large-scale mining is a major driver of economic development. When it begins production in 2013, the Oyu Tolgoi mine is projected to be one of the world's most lucrative copper and gold mines. The nation also profits from its position, which puts it between the economic powerhouses of China and the Russian Federation.

The nation has used some of the proceeds from its economic growth to fund an impressive school-building program.

Mongolia, like many other nations in the region, has had great success increasing primary and secondary school enrollment.

"Mongolia faces problems in the education sector, but its government has been dedicated to strengthening it by enacting numerous measures and

offering subsidies such as free textbooks for poor students, free school snacks, and free kindergarten meals" — Jazira Asanova is a specialist in education at the ADB.

All in all, prospects for the education sector in Asia are looking bright. Smart education would strike a balance between the immediate attraction of rising demand and the more nuanced cultural, educational, and economic forces that are still at play (King and Guerra, 2005). Meanwhile, internet provision, offshore provision, "broken campus" services, and twinning agreements can serve as both proving grounds and alternative avenues for foreign cooperation. The Asia-Pacific region is poised to impress after decades of astonishing growth.

Chapter 12

The Future of Education in Asia

CONTENTS

12.1. INTRODUCTION

Education is the key to success is what we hear parents say to their children because they actually want them to study. Well, this is true. Education is by far considered to be the driving force of a number of factors in the world. Take, for instance, if there would have been no education at all, human beings and animals could probably have little differing elements. Education has helped individuals realize the age of the industrial revolution and has been the driving factor of technological innovation. In this case, it is not only the modern education that is taken into account but also the cultural education system where individuals are groomed morally. One thing that can be agreed upon is that the continuing purpose of education since ancient times has been to ensure people understand or rather have a full realization of what it is to a human being (Kirkpatrick and Liddicoat, 2017). However, this is not the only reason why people seek to be educated. Some of the purposes of education that have been widely accepted include serving the needs of the society, developing one's intellectual capacity, contributing effectively to the economy, preparing students for their future in the employment world, promoting a particular social or political system, and to help in the creation of an effective workforce (Figure 12.1).

Figure 12.1. *Grandparents help in educating the young ones. It is the role of the grandparents to instill morals in the young ones.*

Source: Mommybites.

Equipping learners with the ability to live a fulfilling and productive life is one reason why countries involve themselves with an education system.

From time to time, countries around the world have been working hard to improve their education systems. As a matter of fact, there are a number of reforms that are put in place in the school systems around the world in order to be considered as a good school. It is always by merit that a school gets an opportunity to be considered as one with a proper policy. Sadly, not all of the schools that try to bring forth reforms have the capacity or the capability to come out on top. There are however those countries that have shown promising educational improvements in their schools. These achievements are attributed to the fact that these schools are focusing on learners that are long life and mostly not seen to be limited to the knowledge of the books. These learners are focused on more than just what has been written down for them to study as required in the textbooks, but the curriculum is seen to be competence-based (Kapoor, 2009). These schools are found in Asia and are mostly located in China, Singapore, and Korea. These countries are trying their best to improve their education system, which then makes the rest of their continental counterparts work hard in order to get to that particular level. Ideally, the schools that are found in these regions are recognized as some of the best schools worldwide. In order to fully understand how education in schools is good worldwide, one needs to understand the reforms and the activities performed by them that keep them on top.

12.2. SOUTH KOREA

When one is trying to describe an education system as being outrageous, ostensible, and probably the best, then you are fully talking about the education system in South Korea. This country is known to have tried to overcome the debris that was left from the war and is still dealing with the issues of North Korea. It goes without saying that, these individuals have actually gone particularly through a great millstone to get where they are in terms of education. This country is considered worldwide to be 100% literate. This is given in a condition in which there are still countries in the world where individuals are considered to be illiterate. Researchers have even gone to the extent to say that this country is at the cutting edge of international comparative tests of accomplishments. Included in this test is the reasoning one and also that of analysis (Jensen, 2012). This shows that the population of individuals in this country is not only book smart but are also life smart. Seoul for instance is said to own students that are experts in terms of knowledge transmission. This shows that there is exceptional execution of all the global assessment measures.

In the current years, Korea has even gone an extra mile to implement new strategies to be used in the schools in order to improve on the creativity phenomena, which is actually one of the most important concepts an individual should possess in this world. The schools are not only engaging in instilling the students with information, but they try to make sure that the same information plays a crucial role in their entrepreneurship ages. Life is actually becoming hard with educational transformation, which is actually brought about by the transformations in technology and the economies at large. The nation has been able to come up with a strategy they call STEAM in providing education for their students. In this case, the curriculum is hoped to connect the endeavors of various fields that are studied in school. These fields include science, technology, engineering, and mathematics. These are what are known as the STEM fields. These are some of the fields that are important especially in the transformation of a country, especially when dealing with the industrial revolution (Jacob and Lefgren, 2004). Technology is currently the driver of most economies around the world. When looking at the sectors in a certain nation, there is a way that technology has planted its roots in them. Take for instance agriculture, which has been able to improve because of technology. It has gotten to a point where hiring human labor is not effective and efficient, and thus, the creation of technological equipment has been able to assist the humans in maintaining their farms and consequently feeding them. Asia is a hotbed of machinery, and they have helped in the transformation of the country's economy.

12.3. CHINA

China has been reported to be among the countries with the largest most epic modern education system. The reforms and development have lasted for the past 100 years, starting from the late Qing dynasty reign to the founding of the People's Republic of China (PRC) in 1949, to the reform and opening-up policy in 1978, until today. The country has been through huge progress and achievements phases, which have contributed tremendously to reducing poverty and boosting prosperity. The current system, however, faces many long-lasting problems related to education return, quality, and equity, being a developing country with the largest population in the world. The ancient China education system was mainly based on manual labor, small-scale farming, and social structure, which was highly hierarchical. The core purpose of the education system then was to cultivate rulers or officials that were focused on humanities and classics education such as philosophy,

religion, politics, history, humanities, and literature. The teachings or learning were mainly based on own personal experience and instincts. The current education system in China, in contrast with traditional education has popularized modern scientific and cultural knowledge education at its core (Huang, 2007). Additionally, the learning and teachings have been professionalized, unlike in the traditional system where people depended on their personal experience and instincts. The various schools are clearly classified and closely linked in terms of syllabus and modes of teaching (Figure 12.2).

Figure 12.2. *Children learning in a classroom in China. Traditional modes of teaching such as the use of personal experiences and instincts have been dropped.*

Source: Teach English in China.

The modern education system in China has been reported to have its origin from other countries. From the 17th century, the rise and establishment of modern education in global societies started. It entailed the emergence of national education, universal compulsory education, and teacher education, classroom teaching mode, a subject-based curriculum system, and the development of educational science. However, past studies emphasize that the current modern education in China appeared much later than in most Western countries. The government of the late Qing Dynasty at the beginning of the 20th century, issued regulations regarding school systems, signaling the transition of China's education system into a modern schooling system with clarified specifications for various types and levels of schools, the number of years required for study and training, curriculum, and pedagogy (Horie,

2014). Since then, China has undergone a turbulent transformation from an ancient feudal society towards a modern society finding its way to reconstruct the political, economic, social, and cultural systems. China continues to embrace that education as the center in playing a role in advancing personal and social development. The country's education system first learned from the German education system through Japan, and then drew lessons from the education systems in the United States and the Soviet Union. Proactively and continuous teachings or learning from the experiences of other countries was crucial for the development of China's modern education system. From learning's drawn from the specific traditions from China's education history, combined with independent exploration and coming up with innovative ways to solve the problems, the modern education system in China has been successfully developed.

Being that the overall education quality in China has improved greatly, most people still believe that the quality of overseas education in developed countries is much better than domestic education, and many domestic graduates may not have advantages compared with other Chinese students who receive a foreign education, especially in terms of innovative activities in research communities and businesses. Therefore, questions such as whether an overseas education is of better quality and the determinants of the difference in the quality of foreign and domestic education at various levels, await future explorations, which is critical for the future improvement of education quality in the country (Ho, 2014). Although the future many times has been uncertain and fails to be, predicted China has forces driven by the increasing globalization and the fast technological rates of development in the education system. The forces have been reported to contribute enormously to the current education system, and certainly, with the continuous developmental progress, the education system is likely to adversely change. Schools in the country are more likely to drift to preparing young adults for the kinds of job opportunities that have not yet been created and for technologies that are yet to be invented. They will be trained on solving problems that have currently not been anticipated; thus, it will be an opportunity for future generations to seize opportunities and find solutions.

To navigate through such uncertainty in the future, students will need to develop curiosity, imagination, resilience, and self-regulation. Moreover, they will need to respect and appreciate the ideas, perspectives, and values of others; and they will need to cope with failure and rejection, and to move forward in the face of adversity. Their motivation will be more than getting a good job and a high income; they will also need to care about the well-being

of their friends and families, their communities, and the planet. This will be achieved by the aid of a transformed up-to-date education system in China so that it can equip learners with the competencies they need to contribute to the world in the future (Hayhoe and Li, 2008). The future education system will in addition help the society or the community at large with coming up with better solutions to the ongoing persistent challenges such as environmental where climate change and depletion of natural resources that require urgent action and adaptation. Another challenge is an economic limitation where scientific knowledge is creating new opportunities and solutions that can enrich lives, while at the same time fueling disruptive waves of change in every sector. Unprecedented innovation in science and technology, especially in biotechnology and artificial intelligence, is raising fundamental questions about what it is to be human. It is time to create new economic, social, and institutional models that pursue better lives for all. Financial interdependence at local, national, and regional levels has created global value chains and a shared economy, but also pervasive uncertainty and exposure to economic risk and crises. Data is being created, used, and shared on a vast scale, holding out the promise of expansion, growth, and improved efficiency while posing new problems of cybersecurity and privacy protection. Another challenge that would be intended to be solved by the future education system in China would be in terms of the social context (Hawkins, 2012). Given that, the global population continues to grow; migration, urbanization, and increasing social and cultural diversity are reshaping countries and communities. In large parts of the world, inequalities in living standards and life chances are widening, while conflict, instability, and inertia, often intertwined with populist politics, are eroding trust and confidence in the government itself. At the same time, the threats of war and terrorism are escalating. These global trends are already affecting individual lives and may do so for decades to come.

Future-ready students will need both broad and specialized knowledge from the education system in China now and more advanced in the future. Disciplinary knowledge will continue to be important, as the raw material from which new knowledge is developed, together with the capacity to think across the boundaries of disciplines. Epistemic knowledge, or knowledge about the disciplines, such as knowing how to think like a mathematician, historian, or scientist, will also be significant, enabling students to extend their disciplinary knowledge. Procedural knowledge is acquired by understanding how something is done or made the series of steps or actions taken to accomplish a goal (Hallinger and Lu, 2011). Some procedural knowledge

is domain-specific, some transferable across domains. It typically develops through practical problem solving, such as through design thinking and systems thinking. Students will need to apply their knowledge in unknown and evolving circumstances. For this, they will need a broad range of skills, including cognitive and meta-cognitive skills such as critical thinking, creative thinking, learning to learn, and self-regulation. Moreover, they will need social and emotional skills which include empathy, self-efficacy, and collaboration and, in addition, practical, and physical skills will come in handy for them as they will need the knowledge and skills on using new information and communication technology (ICT) devices that will be up to date in the future (Hashim et al., 2011). The use of this broader range of knowledge and skills will be mediated by attitudes and values such as motivation, trust, respect for diversity, and virtue. The attitudes and values can be observed at personal, local, societal, and global levels. While human life is enriched by the diversity of values and attitudes arising from different cultural perspectives and personality traits, there are some human values, for example, respect for life and human dignity, and respect for the environment, which would lead to serious unlawful crimes that cannot be compromised.

An education system that is more prepared for the future is a change agent. It can have a positive impact on their surroundings, influence the future, understand people's intentions, actions, and feelings, and anticipate the short and long-term consequences on the results of the teachings in the long-term education system in the country. The dangers of designing higher education curricula for immediate usefulness are real. Gearing degrees to the contemporary workplace and training students for specific jobs can potentially pave the way to chronic unemployment. The forces of globalization and new discoveries can shutter factories, bypass entire industries, and throw graduates who are narrowly educated on the slag pile of human obsolescence. Thus, the future education system should be reformed to solve some of these challenges in China (Grossman et al., 2008).

As China exerts efforts towards becoming the world's largest economy, there are indications of an economic slowdown and an alarm about how this will shape future the education system in the future. China already has the most students in higher education, more scientific publications, and a larger budget for research and development than any country in the world, except the United States. Several flagship universities have gained an excellent ranking, though the system as a whole does poorly on quality indicators. It bodes well for the future of Chinese higher education, which prospective students in its largest city outperform counterparts in mathematics and

science in the country's Organization for Economic Cooperation and Development assessment. While the debate continues in China about how to build a unique university model to compliment the Beijing Consensus, efforts to shape universities with indigenous ideas are stymied by the race for global rankings. Universities, however, struggle with uninspiring teaching that is reflected in media outlets that report students are sleeping through lectures or are often distracted through getting in and out of the lecture halls. A recent study shows many teachers liven up their classes by criticizing the government and the Communist Party, leading to a call for more teaching of Marxism.

China's governmental leaders understand that its universities are not only instruments of knowledge creation and dissemination, but also instruments of international competition. Initiatives are underway to foster soft skills in the science, technology, engineering, and mathematics fields to drive industrial innovation and China's economic globalization. Despite such efforts, a burgeoning of unemployed graduates plagues the transition to mass higher education (Green, 2013). The global influence of China's universities in 2025 will hinge on how it handles a precarious balance between domestic demands and aspirations to go global. The domestic demands include those by employers for knowledge and skills to upgrade production, by urban, middle-class households for a status culture that distinguished their children, and by the rural poor, migrants, and minorities for equitable access and jobs. These demands remain subsidiary to the state's demand for national prosperity, power, and strength, stability, and unity. The state orchestrates the aspirations of universities to going global by demanding that internationalization does not sacrifice educational sovereignty, even while the state must eventually cede more autonomy to universities (Brock and Symaco, 2011). By 2020, more Chinese citizens will have a college education than the entire workforce of the United States. While sending more students to the United States than any other country, China itself is fast becoming one of the most popular international destinations for overseas study. Harvard's Vogel may be right that the result of China's opening and reform for higher education has been an intellectual vitality as broad and deep as the Western Renaissance. However, the extent to which China will have a unique and exportable model that powers international higher education in 2020 remains a key question (Figure 12.3).

Figure 12.3. *Higher education being changed to be international. China has an exportable model that powers international education.*

Source: Times Higher Education.

The large-scale engineering education in China is in the industrial period, and the demand of engineers and technical talent is very strong that reforms and opening updates back to 1978. In 2013, the number of college students was 14.944 million, among which the number of engineering was 4.953 million, representing 33.15%. In 2013, there were 172,000 engineering graduates, 212,000 students enrolled, and 631,000 students at schools, accounting for 34.2%, 35.5% and 36.1%, respectively. In 2013, China had 1145 undergraduate colleges, including 1077 engineering colleges, representing 94%; the number of engineering undergraduate professional distribution is more than 15000, accounting for 1/3. China has about 13 million engineering and technical personnel. China has truly become the leading power in engineering education (Forlin and Lian, 2008). The quality improvement of engineering education with the development of science and technology and the progress of economic construction, Chinese universities have gradually set up some new engineering specialty, including environmental science and engineering, information, new materials, new energy and energy-saving, aerospace, marine engineering, nanotechnology, and engineering, Chemical engineering, underwater acoustic engineering, smart grid, etc.

Some traditional professions also added new contents, such as clean use of coal, extreme manufacturing, process control, information, etc., to cultivate a lot of high-needed talent. In addition, social science, and humanities content, such as economics, law, ethics, has been included in engineering teaching. Moreover, the way of combining theory and practice is also to be explored and improved, and many schools have made new progress in the combination of schools and enterprises. Active education and

teaching reform, with the rapid development of Chinese industrialization, the education authorities and some schools have realized that the traditional teaching models cannot meet the needs of industrial upgrading and development. Novel teaching model emphasizes demand decision, value orientation, comprehensive engineering training, and overall reform of curriculum system. At the national level, the National Medium- and Long-Term Education Reform and Development Plan 2010–2020, which was presented as a major education and teaching reform program, to educate and train excellent engineers, which were officially launched in June 2010. "Excellence Plan" is an important measure for China's engineering education to serve the national development strategy in the new period (Faragher et al., 2021). The task is to focus on "industry guidance, school-enterprise cooperation, classified implementation, various forms," including actions that are based on the establishing of a new mechanism of training talent by cooperation between schools and industry, innovating engineering education personnel training mode, developing a high level of engineering education teachers, expanding engineering education, developing outstanding engineer education and personnel training standards.

Since the implementation of this project, there are nearly 200 colleges and universities, about 30,000 students involved, nearly 1,000 school-level engineering practice education centers are built, and more than 6,000 enterprises and thousands of enterprises part-time teachers have participated in the training of engineering personnel. The program has taken an encouraging pace, and their impact on China's education reform and promotion are constantly emerging. Some schools have also carried out a series of fruitful reforms. The most notable is the reform of teaching models, like CDIO, which stands for Conceive, Design, Implement, and Operate and STEM, which stands for Science, Technology, Engineering, and Mathematics as well as PBL, which stands for Project-Based Learning. For example, Shantou University integrated the elements of professional ethics education into CDIO to make its meaning more comprehensive. PBL also began to be practiced in some schools as an important part of China's new teaching models. Engineering education certification system was established and improved. In recent years, China's engineering education is rapidly developing, and higher requirement of engineering education quality is put forward (Chiswick and DebBurman, 2004). On the other hand, with the development of economic globalization, the international trend of engineering education is becoming clearer. Since 2006, China has gradually established and improved the engineering certification system

with substantive equivalence with the international certification system, and actively applied for the relevant international mutual recognition agreement. China's engineering education has adopted the internationally outcome-oriented concept and standards, and focused on communication skills, cooperation skills, professional knowledge and skills, life learning ability, and sound world outlook and responsibility sense, etc., which has a profound impact on the development of training programs and entire engineering education reform.

By the end of the year 2013, China has more than about 370 professional certified points. This is an important guarantee for improving the quality of engineering talents and participating in international competition. Problems of Engineering Education in China include the cultivation of outstanding engineering and technical personnel. However, China's engineering education is currently facing a huge challenge, including valuing theory, ignoring practice; valuing knowledge, ignoring ability, valuing analysis, ignoring comprehensive, valuing common requirements, ignoring personality development; valuing inheritance, ignoring innovation, and so on (Cummings et al., 2014). At present, China's engineering and technical personnel generally lack innovation capacity. The number of engineers per million dollars output is reported by past records to be about 16 times that of the United States and about 13 times that of Germany. This highlights the problem of the irrelevance of institutional education to the actual industry need. Because of structural contradictions of supply and demand, students cannot adapt to an ever-changing environment, and their self-learning ability is weak at school. The skilled personnel, who can meet the needs of enterprise development is additionally very limited. Engineering education, including the teaching methods, content, means, etc., has a big gap with the construction of lifelong learning system for future purposes. Social orientation Engineering colleges and comprehensive universities play different roles in cultivating applied talents and research talents, respectively, for the future of China. However, there is no appropriate guidance on teaching thinking and ideas in Chinese society; making the trend of blind comparison poses a major challenge to the education system. Many vocational and technical schools are trying to remove the occupation and specialist's status, thus end up losing their original training expertise in the application of talents.

The convergence of schools' development goals and models In China's colleges and universities are administratively divided into higher vocational colleges, research universities, about 211 institutions, and 985 institutions. The level of funding and other support is closely linked to their administrative

levels. Therefore, the higher school's level, the more resources it is likely to attract. Then, schools with lower levels are going to attract few resources and would later be incapable of achieving higher levels. Many distinctive engineering universities gradually abandon the goal of training engineers and convert to comprehensive or research universities (Choi and Lee, 2008). In this process, the goal of cultivating diversified talents is distorted. In the discipline planning and professional settings, some schools blindly run after the industry's basic professional disciplines, resulting in a lack of training for this type of professionals. The lack of an innovative educational environment at present, in engineering colleges, is another challenge facing the future of China's education system. Due to the continued enrollment in recent years, teachers' teaching workload increases rapidly, resulting in many teachers having no time to innovative training mode and methods and having to use traditional methods to complete the teaching task. Teachers lack the sense of innovation, so they will not produce creative teaching results and scientific research. On the other hand, the curiosity and imagination of students are often ignored in education; many students are only used to passively answer the ready-made question, lacking the ability to take the initiative to propose new issues. Furthermore, the lack of engineering practice experience and ability of teachers in China has continued to be a challenge (Butler, 2015). Most teachers engaged in engineering education are not involved in engineering practice experience, and there are not many practical engineers to teach in schools. Many teachers go only from the school to the podium, from students to teachers, having no practice experience. In addition, many teachers only attach importance to academic qualifications and level, have contempt for production practice, resulting in some teachers have higher degree and professional knowledge, but lack practical experience. All these escort to their inability to use engineering examples to explain practice appliance of foundations and principles.

The teaching system, which is not suited to the characteristics of engineering education Practical teaching, is a weak point in the Chinese education system in the near future. Various schools emphasize only scientific knowledge and ignore experimental curriculum. Students have less chance of hands-on operation. The applied and or practical ability of engineering graduates is generally poor, and their professional instinct is narrow. Due to the large number of students, there is a big contrast between the requirement for good practice and actual conditions. Schools' experimental conditions were seriously inadequate, and the experimental group is getting bigger and bigger so that students cannot get more opportunities of hands-on practice

(Burchinal et al., 2010). Moreover, the relation of school and the business is weak, so there are very few opportunities for students to experience business practice. In addition to poor practical ability, students generally lack comprehensive thinking ability and interpersonal communication skills. Due to the long-term impact of exam-oriented education and the absence of logic and communication courses, students generally lack the ability to ask questions independently. In addition, academic misconduct and other bad behavior and culture have a negative impact on students, so that some students lack the spirit of independent personality and the pursuit of truth. In China, colleges and universities are the base for cultivating talents, and industry hires them, there is no internal mechanism between them. There is double "isolation" of school education and enterprise production: school education is often self-implemented in a systematic way, and lack of understanding of production reality and talent demand; industry lack motives and institutions involved in school education, and lack effective feedback mechanism for personnel training strategies. In this way, the way of cultivating engineering personnel is lack of complete links, students' knowledge structure lacks wide applicability, and the training of engineering practice ability cannot be effectively guaranteed. School competition is expected to intensify in the near future, as the gap between supply and demand of engineering talents will be alleviated. With the change in population structure, the total number of people participating in the college entrance examination in recent years began to decline, which means that competition between schools will intensify, prompting schools to improve their training quality (Bray and Kwo, 2014). With the economic development and enrollment growth rate decline, the gap between total supply and demand is likely to be gradually eased in the near future. The competitive situation will encourage schools to study more needs of the community, and gradually realize the diversity of needs.

Industrial transformation is needed in helping to solve the problem of combining production and training combinations of industry and academia. School enterprise cooperation is the fundamental way to solve the lack of practical education. On the one hand, the legislation needs to be promoted to make enterprises clearly understand their social responsibility for talent cultivation. Alternatively, the school should carefully organize students to participate in practical activities, so that students can be learning effectively learning and enterprises can benefit from them. At the same time, small, and medium enterprises must change their development mode under market pressure, to lead them to produce engineering talent and engineering

innovation needs. This is given that; the reform of the curriculum system is a long process. The main force is the teacher, while the possible resistance may also come from the teacher (Lim, 2016). To clarify the truth, to mobilize the teacher to change their ideas, and actively explore and learn from the successful experience, combined with the actual situation of the professional and the school. To digest and absorb an in-depth and comprehensive understanding of CDIO, STEM, PBL virtual reality (VR), and so on, in the efforts to enhancing the future education system in China, new practices need to be endlessly produced. The overall quality of students will be improved from all aspects Schools should moreover coordinate various courses, so that students can acquire the necessary knowledge and train their abilities.

In the near future, China's education system is expected to lastly include the long-term missing courses, such as engineering ethics, logical thinking, interpersonal communication, which should be, should be gradually set up and extended in the system. Further, the science and technology competition and other extracurricular activities and other useful social activities should be organized in secondary schools. Given especially from the content of engineering education in China's education system, all schools should incorporate basic engineering knowledge and teachings to help their students in adapting to the needs of the future world in solving future and current societal problems (Lee et al., 2013).

12.4. SINGAPORE

When wanting to assess education globally, Singapore is known to be a solid transmission for education. In order to get to this particular position, Singapore has been able to come up with a system of the 21st century. The century has been one in which there has been a lot of transformations in many sectors and has led to major changes even in the education system. The system adopted by Singapore has been put in place with the aim to improve each order in the entire curriculum, starting from kindergarten to the higher education system. Furthermore, to make this strategy successful, Singapore opted to also look at the teachers, as they are the transmitters of knowledge in the school environment. One system that they adopted was the update of the teachers' training in order to make them be not only instillers of knowledge but also skills.

In moving towards the pat of being considered as a nation with one of the best education systems around the world, what Singapore did was to extend the educator's teaching capabilities. They also made it essential for

the teachers in the nation to improve on their fundamentals and further their 21st-century aptitudes to higher levels. This is so because, in the long run, the students do not only need the knowledge that is written in the textbooks but also needs the skills or rather the smarts that will help them survive in the real world (Kosonen, 2005). In Singapore's education, the best component is to execute an education plan that deals with the various capabilities that are seen in the world. These are those activities that show how there are changes in the world. Examples of such activities that help in shaping individuals include physical education, arts, and music. The studies may not seem to be that important but are actually very important in terms of shaping the morals of the students.

Figure 12.4. *Communication in an organization. Teaching communication skills in schools is important, as it is essential in a career.*

Source: NewSkilz Corporate Training.

The framework that has been agreed by the nation says that these abilities are important in terms of encouraging comprehensive pedagogy. Furthermore, it is said to help in empowering the students in terms of improving their intensive and expressive capabilities. Furthermore, they are known to be essential in shaping the social and cultural personality of the children; these may have been once described as extracurricular activities. These activities go without a say as being important in building the self-esteem of the children. Take, for example, that student that was always in the drama club. These are ones that are normally seen to pursue their careers in politics. In fact, these particular students tend to be confident in the ideas that they come up with and thus help in the improvement of the nation at large.

It is those ideas that are given by an individual that are helpful in building a company. As a matter of fact, before the rising of a company, someone came up with a particular idea and was good enough to make the market value and become a company. The same company, through its growth, has been able to create employment for a number of individuals, which provides income for them (Figures 12.4 and 12.5).

Figure 12.5. *Children engaging in physical education. These activities help in the shaping of the children's abilities, including the preparation of their learning.*

Source: Study.com.

In Singapore, there is a prominent focus on the participation of students in extracurricular exercises. The reason behind asking students to engage in the same is for the sole purpose of helping the students understand the importance of merit and coordination. Looking at coordination as a concept, it is very important in most organizations that help ensure that there is the proper understanding of the employees of how they are required to perform their duties.

12.5. EDUCATION IN INDIA

India is on its way to try to improve its education system, and the three countries are considered by the nation as the role model in terms of the strategies that they use to improve their education system. India is a country that has not yet fallen in the ranks of the OECD high-performing nation, and they have decided to implement a strategy to improve their education system. In 2020, the country proposed a revolutionary National Education

policy and have been able to work towards and finally implemented it. In this policy, the consideration was on the higher education system whereby they introduced changes in which higher education was being imparted in schools (Knight, 2012). Higher education in most countries around the world is an environment, which the students get to specialize in the particular thing they want to do. This is where the students get to work on their cares as they get a platform to choose the subject that they want to do. In fact, this is the reason why this is the stage in education that most nations have not made compulsory as this is the age one is able to decide what they want to do. At this stage, there are those students that decide to get into the career world. Teachers, doctors, among other individuals are manufactured at this point. There are those who pass in their senior high school and are enrolled in colleges and universities. Sadly, there are those students that do not get to have a similar chance and decide to go for vocational trains where they learn to use their hands to make careers.

With India implementing this particular policy, it is said that there will be less focus on textbook learning where the students are allowed to use the skills that they have been able to acquire all the way in their higher education experience. These students will be able to bring in skills such as administration learning, project-based learning, communication, and, most importantly, developing technological skills. This policy implemented by the nation of India, even though mostly on the students in the higher education stage is seen to be more competence-based. This is where the students know that they can actually perform certain duties in their lives.

12.6. THE PHILIPPINES

In 2020, after the onset of the COVID-19 pandemic, nations around the world had to come up with measures to ensure that the children are able to go to school. Education has proven for a long time to be the root of the development of a country, and thus it should not be able to stand even when a country is going through a particular crisis. With the pandemic, the crisis that was seen is that there were prolonged closures of the schools and thus, there needed to be ways in which the country would ensure that learning continued. This is where online learning came to be and virtual education came to the market (King and Guerra, 2005). At this period there was research done on looking at the future of education in the Philippines. There were trends in education that were observed that in fact were easily recognized across Asia, especially in the southeastern parts. There are

some predictions that a researcher concluded with regarding the future of education in the country. One of the predictions was that the traditional and the formal types of education are going to be replaced. What will replace them will be the byte-sized training programs whose main aim was to help the children in their processes to acquire jobs. Instead of taking a lot of time in school learning some of the things that you may not be able to apply in your careers, why not learn of the job you are going to do and be okay with it. The researcher claims that after the pandemic, a pathway will be created for the communities whereby they will move from the norm of treating the tertiary degrees as achievements. These are the certificates that are used to signal that a particular individual is equipped with skills and knowledge and offer them credibility to be hired in a particular job. The individuals in the region will be able to focus on programs that have the capacity to land them jobs. This means that the study of the theoretical part will be limited to only a few people needed to use their critical thinking in their careers. It is well known that most universities and colleges are expensive, and individuals still value them because of the notion they have on them regarding their credibility to help their children land jobs. With this particular shift, it will be more and more difficult for the universities to demonstrate their value relative to their cost (Figure 12.6).

Figure 12.6. *University in the Philippines. While more jobs need individuals, who have certain skill sets, universities will lose their value relative to the cost.*

Source: Free-Apply.com.

The case is however considered less of a prediction and more of a concept that has taken effect in the Philippines. The young professionals in the country are taking the initiative to attend the short-term skills boot camps to acquire the skills that they need in order to secure a job rather than joining

the tertiary institutions. Examples of such boot camps in the Philippines include Eskwelabs, Bagosphere, and the FTW Foundation. It is not only in the Philippines that this transition is being seen but also in some parts of Southeast Asia. The reason for this transition can be further supported by research done by the HolonIQ, which concluded that the workforces that are being started focus mainly on the skills that the individual possesses which tend to outnumber the number of jobs that require individuals that have attained higher education (Brock and Symaco, 2011).

The second prediction is that there will be the adoption of online learning. This is attributed to the fact that there has been proper internet penetration all around the world and there has been the rise of e-commerce. All this is something that was in play even before the onset of the pandemic and was only made efficient during the particular period in order to ensure that the students continue with their learning even when they are at home. As individuals that are involved in implementing school policies have seen actual results come out of it, there will be the use of this particular form of learning even after the pandemic has been forgotten. The language education space in Southeast Asia has been the greatest victim of this system of education. Let us just say the science department will be the ones to still use physical learning because of the experiments that are required. They require supervision, and it will not be a shock to find that these are the only students that will be required to avail themselves in the school premises mostly after the pandemic as the safety of the students is still a priority. There are even platforms in Asia such as Topica Asia and Cakap that have been trying to reach the Asian students that are in dire need to study English. It will not be long before other subjects engage themselves in this education system, as most learners are willing to adopt this kind of education system (Kirkpatrick and Liddicoat, 2017). This education system is considered to be very efficient, especially for those individuals that are in a work-study program. This system will enable students to be able to attend meetings, be present for their jobs, and still be able to attend schools. A recent study conducted by the TESDA online program shows that in the Philippines, even individuals that are from under the low-income category have been able to adopt this education system. The number actually is 74% of the low-income earners have adopted the same. This is actually a good number and shows that there is a possibility that all the students in the country will be able to adopt this type of education system. In fact, the percentage is an indicator that individuals in the country are willing to transform towards this particular education system.

There are however flows that come with the use of the internet in everything that we do. The internet can get crowded sometimes, especially if a large number of users are utilizing it. The difficulties that they face are those dealing with the completion and the three challenges, that majority of the individuals complain of include availability of ICT access, internet speed, and cost. This shows that the motivation to use the same is not a limiting factor, but the infrastructure is the greatest challenge.

According to reports, the Philippines is said to be a country with one of the slowest internets in the Asia pacific. There is however hope for the country as the country is trying to install its Broadband plan, which will be functioning by the end of 2021. This broadband will be able to enhance connectivity across the country, which means that education will not be disrupted among other sectors that are in need of the internet to reform their duties. There are even investors that have taken the initiative to invest in this program. This is so because they are able to see some of the benefits that will incur to the country if they decide to implement this system (Kapoor, 2009).

Access to ICT is another mentioned issue. Desktops are with o doubt, difficult and expensive to access and distribute, which is not considered a big issue given the fact that the individuals in the Philippines prefer to use their phones rather than desktops. In fact, 97% of the internet users in the country use their phones, and 66% of them have made online purchases by use of their phones. This shows how much the Filipinos are getting more and more comfortable with using their phones in their daily activities and further in their transactions. Cost is another issue, though not a major one given the fact that the people are willing to purchase them is just that in order to access a phone that is fancy and has the ability to last for longer periods; individuals will be required to part way with junks of their money. In fact, if the phone companies are able to bring down their prices to make them more affordable for the citizens, there are many sales that will be made. In fact, the users will have the willingness to shell out a reasonable amount to purchase the phones the same way they normally do for e-commerce products.

The other prediction that has been made is on the barriers to online learning uptake. The issue is that it is said that since most individuals will be using the internet in their activities and pretty much all the students, the payment that will be made to the internet suppliers will be the greatest challenge to them. To motivate a student to take an online course and complete the same is seen to be getting easier. Asking them to pay for the same is what is being considered as the greatest challenge. It is with no

doubt that most individuals are willing to pay for the same, but one of the greatest challenges is that the Philippines lacks a proper payment system in the education technology business (Jensen, 2012). When it comes to dealing with low-income Filipinos, there is little to no access to online payment plans. Hootsuite, a Philippines company, even claims that a sizeable number, about 47% of the e-commerce orders that were made were paid in cash. It is only 10% of the shoppers were able to pay with credit cards. There are, however, some systems of online payments that are rising that will be able to help the low-income earners to make their payments online some of them include Instapay, PayMaya, and GCash. Furthermore, the learners will have a platform to pay for their internet online. In fact, it is said that the learners will have an opportunity to buy a quick online course as fast as they can be able to order food online.

The 4th prediction is that there will be a rise in innovative financing models that will allow students to avail themselves of non-traditional education programs. Education researchers in the Philippines claim that there are two big players in the student financing space. They include the Bukas and the InvestEd. Investing in the education system is important, especially when it comes to helping with the upkeep of the students. These two organizations have taken the initiative to offer student-friendly loans and services for the traditional higher education systems. They are actually experimenting with providing other programs with loans to see the effectiveness of the same. Their main aim is to try to make the education process for the students smoother (Jacob and Lefgren, 2004). The prediction is that these institutions will invest in providing income contingent loans rather than regular time-based repayment loans that are in most cases based on the interest rates. The income-contingent loans are normally offered to the students in the USA by organizations such as Lumni and Better Future Forward. This type of loan arranges for a payment plan that allows for the students to have the ability to repay the loans in direct proportion to the income that they will be earning at the point when they will get their employment. This form of the repayment plan will be able to shift the risk from the students to the investor which is a good thing given the fact that the investor has the ability to deal with such cases if need be.

There is a system whereby the students get into a contract with the funding institutions which is known as the Income Share Agreement. In this financial tool, the organization pays for student's education now in return for the portion of their income in the future. These conditions are normally set from the start, which deals with the income percentage and the payback

period for the loan that the student takes. In fact, there are those instances that indicate that the students are in no obligation to pay in the instance where they are unemployed and are rather earning beneath a certain amount. This funding is considered to be innovative, especially if there is a clear possibility for the student to land himself or herself a job that can be able to pay for their loans.

The other prediction is that it will reach a point where education will be seen as one of the hottest industries to tap into, especially when it comes to setting up start-ups and further venture capital players. Consequently, in the last years, there has been 480 million dollars' worth of capital funding that is directed towards 200 individuals' investment for a technology in the education sector. According to experts, this trend is expected to continue for a very long time coming especially given the fact that the country is seeing that there are proactive trends by them investing in the education system. The success is actually being seen from the consumer behavior perspective and in the infrastructure sector. As years go by, users of the internet will be able to see the value of the non-traditional type of education system and will further be willing to invest in the same rather than invest in the universities and other higher learning institutions (Figure 12.7) (Huang, 2007).

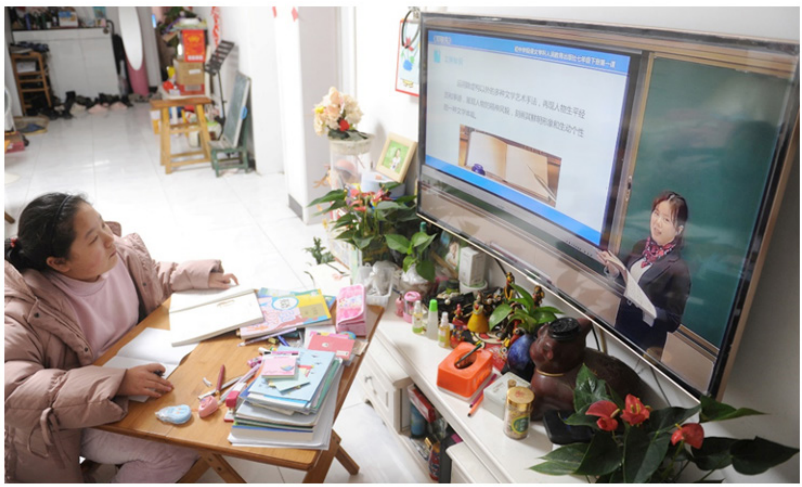

Figure 12.7. *Online learning. After some time, users of the internet will find it credible to apply for online training rather than choosing universities.*

Source: The World Economic Forum.

Ideally, individuals are encouraged to be optimistic about the future of education in the Philippines and in general Southeast Asia. In order to make this a success, the governments, and the private sectors need to be able to set out their differences and work together to create a robust digital infrastructure. If the investment is done smartly, online education will become a more effective and efficient tool that supports a holistic education approach. This is especially for the youth who tend to juggle education with careers to make a better life for themselves. By investing well in the education system, the government and all the other stakeholders in the education system will be able to provide or rather improve the quality and access of learning across the nation.

12.7. JAPAN

The education system in Japan is one, which individuals consider to be over the top. However, in the 1980s and the 1990s, the Japanese government was able to come up with reforms that are seen to be taking effect in the current times and are expected to take Japan to the next level. There are however those that are debating on whether the reforms have been beneficial to them or not. In the last two decades of the 20th century, Japanese education has been known to have been providing the country with exemplary performance sheets. This is alongside the fact that the country is known for its better economic development. With such a beautiful rap sheet, educators from around the world have been mesmerized by the education system of the Japanese. Researchers even went to the extent to claim that the scholars, researchers, and journalists from around the world came to them wanting to understand what their secret in education was. In that particular period, most of the articles that were published were trying to compare the education system of the Japanese with that of the other countries. In most instances, the case was trying to explore the strengths and weaknesses of schools in Japan. Consequently, the conclusions highlighted the commendable aspects of Japanese education that needed to be emulated by other systems of education around the world. In the West, the publications that were made were mostly looking at the students' strengths in science and mathematics. They even brought to the attention that the nation or rather how their society was adamant about academic excellence, the teaching culture that focused on the craft of designing rather than focusing on theory alone, the collegiality among the students and how the schools implemented their lessons (Horie, 2014).

It is also with no doubt that, there were those individuals that during the time when each individual was praising this excruciating education system, they were extolling their approaches o learning and teaching. This led to the heating up of the debates on the goals and the system of the Japanese education system. It was actually sad that the individuals that were taken by the Japanese education system were outsiders from outside countries and not individuals from their own country. For decades and decades, there have been critics within the country that have been adamant that the use of examination and memorization by the students were the root course of numerous societal problems in the country. Even though outside of Japan, each individual was praising the education system of the country, the voice that was raised by the critics within the country did not fall into deaf ears. After all, the same individuals are the ones that are expected to acquire education from these schools and not the outsiders. By the end of the 20th century, the country was able to enact a policy that was seen to help the students at the particular time. Reduced-intensity reforms or what is locally known as the *yutori kyoiku* was the words used to describe the policy reform that was implemented by the ministry of education, culture, sports, and technology (MEXT).

The adoption of these policy reforms, however did not seem to be able to shut down the debates brought up by the critics of education in the area. There were those detractors that claimed that the policy reform was a watering down of the education system and pushed for the previous system of basic education. The various controversies were however seen to signify a push for better and more rigorous education standards, which included the establishment of super science high schools given the fact that the world was taking a route towards science and technology development. The unfolding of all these developments came at the time when the schools in the local districts were adopting market-oriented policies such as the one of school choice (Ho, 2014). Research shows that the Japanese education system is at an important juncture where the schools are confronting the need to step back on the academic pressure that they have on the students. The emphasis is on the need to develop critical thinking skills, cultivate motivation and ensure that the young children are Abe to build a strong foundation in basic education in order to strengthen their future in the education world and land a decent career.

Japan's rapid economic growth was the reason behind the various shifts that took part in schools because of the fact that the living standards of the individuals in the country shifted. By the mid of the 1970s, there were more than 90% of Japanese children were going to high school. The

entrance exams were one of the sorting mechanisms for the children to get their chance in schools given the fact that the population was high and was still rising. This became an interesting topic among the individuals in the media and the people of the media were not soft in transmitting the same. These entrance exams for the high school and the colleges were accused of being a way to undermine the interest of most individuals to learn. At the same time, there was a large number of students that were failing in schools and thus unable to keep up with the demands of the curriculum. Initially, the ministry that was concerned with education responded to this by asking the schools to reduce the intensity of the curriculum. The schools were further encouraged to promote critical thinking rather than to try to emphasize the transmission of large amounts of knowledge to students (Figure 12.8).

Figure 12.8. *Children in classroom in Japan. Teachers are encouraged to produce critical thinkers rather than just transmit large amounts of knowledge.*

Source: UKEdChat.

Later on, in the years, MEXT was able to introduce integrated studies to the schools. This was done for the children that were in grade 3 through to 12, which was able to embody the new approach to the education system of the students in Japan. This was in 2002 where the schools were given the authority to be able to determine the length of the integrated lessons that they were offering in the schools. The nature of the program made it difficult for textbooks on the same to be published as I was more individualized than the other programs that were in the curriculum. The teachers were instead given guides to help them and were further encouraged to collect and develop materials that were original. Furthermore, the teachers were encouraged to

incorporate technology in their learning activities. Furthermore, the teachers that were using the integrated studies to approach certain selected these. Such include understanding of the environment, community studies and international understanding of the education system. The projects involved the teachers going out to the community in order to gather information by the use of interviews, other technologies and most important, through observations choice (Hayhoe and Li, 2008).

By the 21st century, it was argued that the students needed a platform to understand the importance of learning. The encouragement was that the students should be excited about learning ND further be able to think independently. The claims are that, even if the Japanese students are able to be considered as the best internationally, that is by how they have performed, the real success would, however be seen if they are able to find the connection between the real world and what they were able to learn. The concern that, however got to the government was on the issue of mathematics, especially the fact that the students that were seen to be the ones topping had zero interest in the same subject. Ideally, the drivers of reforms in the Japanese education system were the individuals who claimed that the students in the schools needed more than what they believed about schools in the past. This included the national drill and skills that were being adopted before. The argument was that the students needed to complement their understanding of factual knowledge with new abilities and further be able to expand their horizons intellectually. With this perception, the ministry of education was able to the vision of education in Japan. The vision looked at education as a way to responding to the aptitudes and abilities of the students and further encourage them to have that zest for living. This helped the students to learn to enjoy their subjects which would see them taking science and math courses which have aided in the development of the country. With these perceptions, the schools were moved from the notion of memorization and include large doses of passive learning. The teachers were further encouraged to promote more hands-on activities, student-centered learning, and problem-solving courses in their activities.

With the introduction of the reduced intensity reforms, there were mixed reactions that were seen among the citizens in the country. One of the common issues that was noted among the critics was that they needed to understand how the reduced intensity policies would benefit their children. Their basis on it was that it was a platform to threaten the academic standards of the schools in the region. Most of the outspoken commentators on this issue were a group of science and mathematics scholars who ascertained

that the achievement among the college students was declining which was a product of reduced-intensity learning (Hawkins, 2012). For instance, the entrance exams that were initially adopted to sort out the students that were eligible for colleges changed to the acceptance of students based on the recommendations provided by their previous school. These changes even upset the critics even more observed that the students even had the ability to opt-out of some of the subjects that they needed not to do. This is so because a good number of the students were able to drop the mathematics subject.

The opponents that were extreme claimed that with the adoption of reduced pressure education, there was an actual threat to the various system that represented the aspects of success in the Japanese society. However, the ministry of education stood ground that these reforms were aimed at complementing instead of undermining the emphasis on Japanese academic skills. The scholars that indulged in liberal education essentially supported the ministry and child-centered practices. With the fact that at that particular time, the Japanese economy had been at a constant for over 40 years, the scholars that were in support of liberal education argued that the schools needed to be more concerned about developing the skills of the students by developing their thinking abilities. Apart from emphasizing this, the teachers' skills needed to be improved by providing them with better training.

The Japanese however came to understanding entrance exams combined with giving opportunities to a large number of students would be a great way to improve the education system in the country. In dealing with the future of education in Japan and other Asian countries, questions are still being raised on the primary responsibilities of the schools. Teachers are still complaining that a week is not enough time to meet the demands of the student's governments are still pushing them to provide students that are strong. The future of education in Asia is promising for the students in the country and will help them with the various milestones of the future (Hallinger and Lu, 2011).

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Handbook of Education Systems in Asia

Education is the best tool to escape poverty and the realization of goals. Educating young people to read and write can improve their employment opportunities, plus they can be better adjusted to their national development goals-all of which rely on the dissemination of information to achieve fruitful results. This volume presents education literacy as a necessary tool for progress, which provides a new impetus to increase the enrollment rate of children, especially in Asia and the Pacific. Asia is a perfect example of expanding school enrollment; however, the region faces huge obstacles in developing a first-class education system.

Asia is a good example of how to overcome adversity by educating children. The numbers may vary from one country to another, but generally today, 9 out of 10 young people in the region are enrolled in elementary school. For a region with 66% of the globe's out-of-school kids in the 1970s, this progress is amazing. The volume captures this information in the following chapters: Chapter 1: "Early Childhood Education in Asia;" Chapter 2: "Primary School Education in Asia;" Chapter 3: "Secondary School Education in Asia;" Chapter 4: "Tertiary Education in Asia;" Chapter 5: "Open and Distance Education in Asia;" Chapter 6: "Education Development in Asia;" Chapter 7: "Costs and Financing Education in Asia;" Chapter 8: "Challenges in Education in Asian Countries;" Chapter 9: "Educational Transformation and ICT in Asia;" Chapter 10: "School Reforms and Democracy in Asia;" Chapter 11: "Education Trends in Asia;" and Chapter 12: "The Future of Education in Asia."

Although much progress has occurred over the past decade, indicators still show a serious shortage of education and human resources at various levels throughout the region. This reality may weaken Asia's high economic aspirations. Experts say that in today's globalized job environment, competition comes both locally and internationally. Classrooms must attend to a changing job market, and in many countries, classrooms require more and more expertise based on technology and information technology. For Asian countries seeking to accelerate growth, people with higher skill levels are crucial. Education and training will be at the core of sustaining economic growth and the strength of the Asian economy. Elementary school is the first foundation of any education system: higher levels of success depend on the quality of the foundation. By the end of this century, the Asian community began to promote universal primary school enrollment in order to drastically reduce the illiteracy rate. Much depends on how education systems can handle and respond to changes.

In particular, South Asia has seen a large group of people under the age of 25 seeking education to face the challenge of unemployment. Human capital is an important part of economic development; however, in many countries, from elementary school to middle school and higher education, the governments are not keeping pace with the times. A shortage of education directly translates into a shortage of skilled workers, which may put the growth prospects of countries in danger.

Although Asia is a dynamic economy with high demand for skilled labor, compared with other developing regions, the region is also facing a widening gap between education output and labor market demand. Due to the rapid development of the labor market, more resources and innovations are needed to improve the quality of education at all levels to meet the needs of labor. Asian countries must examine the education continuum, and determine how to implement all-inclusive reforms that address the challenges they face.

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