

# **CHAPTER 1**

## **Introduction**

### **1.1 Principle and Rationale Backgrounds**

Human capital development is the key factors of economic growth. Human capital can be measured by education and health. Many researchers proved that the accumulation of human capital is closely related to knowledge, skills, education and health. Human Capital can be seen as the stock of economically productive resources for not only to a country but also to the whole community. In order to improve human capital, investments on education and health should be made such as expenditures on education, on-job-training, health and nutrition towards healthy society. Educational developments by means of improving the qualities of schools and people can lead to have better living standards, high earnings, skilled labors, knowledge-based economy and smart economy.

Education is one of the factors of producing goods and services, improving knowledge skills, inventing and skillfully using new innovations, and promoting economic growth. According to the Cobb-Douglas production function, the output is contributed by the inputs factors such as land, labor and capital. In the theories (the neoclassical growth theories), most of economists emphasized mainly the physical capital, saving and investment. During the 1950s and 1960s in which growth theories are formulated, the neoclassical economists argued that physical capital is the major contributing factors of economics growth and believed that increasing the physical capital leads to increase in economic growth. However, the neo-classical theorists failed to explain the question that the sustainable economic growth is not achieved even though there is an increase in the physical capital.

In the later, human capital and knowledge skills are also emphasized as the main

contributors of economic growth. During 1980-1990, the major economists such as Romer and Lucas formulated the new endogenous growth theories and stated the role of education as the main contributors to achieve the skillful human capital and knowledge. These skillful and perfect human capitals can be achieved by education, job training, and experience. Among them education is the main contributor of skilled human capital. The labors with better education and skillful knowledge can increase their earnings as well as helps promote long-run economic growth.

Moreover, educational outcomes can affect not only labor in different forms but also society. People with high level of education can reduce crime and negative externalities to society. There are a lot of educational indicators like primary, secondary, and tertiary school enrollment rate, literacy rate, and average years of schooling, etc. High enrollment rate in primary and secondary level is an essential factor in a nation's future development. As well, educational development can improve the ability of human capital and long term growth rate. Many economists analyzed the relationship between educational input factors and economic growth. Bassanini and Scarpetta (2001) and Bils and Klenow (2000) estimated that the education capital has strongly affected to the economic growth. They estimated that if the schooling increases one year, the economics growth rate of the country can increase 3 % (Kyem, July 2015).

Myanmar is the largest mainland country in Southeast Asia and is composed of over 130 different races, which have their own languages and cultures. The population is 59.78 million and the growth rate of population is 1.1% in 2011 (Education for all 2015 National Review Report: Myanmar, 2015). The percentage of population aged in between 0-14 years was 29.4%; 15-24 years, 18.4%; 25-59 years, 43.4%; and 60 years and above, 8.8% (Education for all 2015 National Review Report: Myanmar, 2015). Moreover, life expectancy was 65 in 2011 and adult literacy rate was 95.08% in 2012 (Education for all 2015 National Review Report: Myanmar, 2015).

Myanmar was a colonized country during the period of 1824 to 1947. During this period, Myanmar education system was formed into three types of school, which are Vernacular school, Anglo-vernacular, and English school. Anglo-vernacular and English school come with high fees. Other expensive school expenditures and most of

Myanmar's citizens are restricted to attend this kind of school. Only the high income families can afford to attend Anglo-vernacular and English school. The vernacular school is formed by the local education rules and regulations. The vernacular school was the only school for children in the whole country (Lwin, Education in Burma (1945-2000), 2000).

During the colonial period, there existed 6552 vernacular schools including 251 high schools, 863 middle schools, and 5438 primary schools. Furthermore, there were 215 Anglo-vernacular schools, 102 high schools, 106 middle schools and 7 primary schools. The government is 1% of all of the schools in Myanmar, consisting of 38 high schools, 7 middle schools, and 42 primary schools. At that time, the education for Myanmar citizens would not have the equal opportunities and rights. After the colonial period, the education system was changed and formed as the Department of Education to implement the Simla Scheme of Educational Rehabilitation. Honourable Sir Htoo Aung Kyaw, chairman of the Education Reconstruction Committee, reported to open the post-primary schools and primary schools and only state manage and control the whole educational system. 42 post-primary schools and 2060 primary schools were open. (Lwin, Education in Burma (1945-2000), 2000).

After independence since 1948, the economy and the education system was changed under the rule of parliamentary democratic period. Under the parliamentary democracy period, the government tried to democratize the education system and the "Burmanize" school knowledge, so that they did not focus on the nationalization. Because the reconstruction style of nationalization in the education and the other sectors seriously impact on the dangerous factors especially political case. Moreover, the insufficient numbers of experts will lead to the civil war and the price fluctuations in the economics sector. That is the reason why the early parliamentary democracy period relied on the assistance of the foreign countries. Therefore, the groups of the western professionals provided the educational services to improve the Myanmar's education system at that time.

The Burmese Way to Socialism was started when the Revolution Council took over the power of the government of the parliament democracy. In 1962, the Revolution

Council announced the nationalization of all the sectors and this leads to the social revolution, and especially the education and the economics sectors are the most significant sectors. The Burma Socialist Program Party tried to change the social character of the citizens in both political and economics. The Revolutionary Council nationalized the agricultural production, distribution, communications and transportation, trade sectors, industrial production, and also the banks in order to construct the new socialist economy. *“From a world system perspective, socialist revolutions motivated by strong anti-foreign, anti-capitalist, and anti-capitalist sentiments commonly shared by many nationalists are considered as anti-systemic projects which attempted to withdraw from and dismantle the global capitalist order in which these third world nations occupied invariably in the periphery”* (Zarni, April 18-22, 1995).

The Burma Socialist Programme Party tried to withdraw the thinking of the capitalist system, for the colonial period was over a thousand years. Therefore, the Revolutionary Council ordered to leave all of the foundation of the West. Moreover, the incoming of the foreign magazines, journals, newspapers, and the libraries were also ordered to close, that caused the assistance of the foreign countries to improve the educational services to leave from the country. In this period, the education system was changed to Burmanization of intellectual and cultural life of the country. The most popular voice of this period is “Burma is Our Country. Burmese is Our Literature. Burmese is Our Language. Our Country Cherish, Our Literature Uphold Our Language”<sup>2</sup> (Zarni, April 18-22, 1995). During the BSPP period, the enrolment rates are low and, the schooling facilities, equity, efficiency and the quality are insufficient and ineffective.

After 1988, Myanmar economy transformed from a central planned economy into a market economy, and a series of reforms were made in both national level and sectorial levels. The Minister of the education accepted the world programme which focused on the education for all, and the joint venture of UN agencies for the education sector under BSPP. Under the BSPP period, the basic educational law was initiated and the main obligations are to develop the language, literature, fine arts and the culture of the National races and to improve the education, health, economy, transportation and

communication in the national level especially less-developed national races. The other important obligations are to promote the education and health of the citizens, to enact the essential laws to enable the participation of their education and health for all of the citizens, implementation of the free fees of the primary education system and to undertake the modern education system that will improve the critical thinking and good mindset of the citizens that will lead to build the developed Nation.

In the early 2000s, the education sector was reformed, and the vision is “*to create an education system that will generate a learning society capable of facing the challenges of the Knowledge Age*” (Myanmar, 2004, September). The education sector separated the two main sectors under the ministry of education which are the basic education sub-sector and the higher education sub-sector. The Ministry of education implemented the short term and long term plan to create a lifelong society and to achieve the Millennium Development Goals for the education sector which are:

Goal 2 and 3:- (a) MDG 2: “*Achieve universal primary education*” with the target of ensuring that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling”; and (b) MDG 3: “*Promote Gender equality and empower of women*” with the target of eliminating gender disparity in primary and secondary education preferably by 2005, and to all levels of education no later than 2015” (Education, 13-16 February, 2012, Nay Pyi Taw, Myanmar).

“*The ten programs being implemented in the Basic Education Sub-sector under the Thirty-Year Long-Term Education Development Plan are:*

1. *Creating an education system for modernization and development of the country*
2. *Basic education for all*
3. *Improving the quality of basic education*
4. *Providing access to pre-vocational education and vocational education at different basic education levels*
5. *Improving access to teaching, learning and communication technology leading towards e-Education*
6. *Producing well-rounded, developed citizens*

7. *Capacity building for educational management*
8. *Carrying out basic education activities in collaboration with community*
9. *Improving non-formal education activities*
10. *Improving educational research”* (JAPAN INTERNATIONAL COOPERATION AGENCY PADECO Co., 2013, February)

Before the implementation of the long term plan, the ministry of education implemented the medium four year plan (2000 to 2004) which included the special six programs for the basic education level. “The briefly achievement of the medium fourth year plan are to increase the primary school enrollment rate, to revise the curriculum of the basic education, to promote the critical thinking of the students, to encourage the quality of the teachers” (Myanmar, Development of Education in Myanmar, 2004 September).

Under the New Democratic Government (USDP period), the most of education system was reformed, and the main focus is to upgrade the national education for all citizen. Therefore, on 18th March 2011, the Head of State laid down Education Policy which are:

1. *“To implement free, compulsory primary education system;*
2. *To increase the enrolment rate in basic education sector;*
3. *To nurture new generations as intellectuals and intelligentsia in the human resources development;*
4. *To improve capacities of teachers in both basic and higher education sectors;*
5. *To utilize teaching aids more effectively;*
6. *To upgrade the quality and the socio-economic status of educational personnel;*
7. *To provide scholarships, stipends and awards both locally and internationally;*
8. *To promulgate relevant laws for the participation and contribution of private sectors in education services;*
9. *To collaborate with international and local organizations including the UN, INGOs and NGOs; and*

10. *To upgrade education standard to international level*” (Education, 13-16 February, 2012, Nay Pyi Taw, Myanmar).

Under the guidance of the USDP period, the infrastructure for the education sector will improve like as the number of teachers, schools and the students. The following Table shows the increasing number of the basic education schools, Teachers and students from 2007-2008 to 2013-2014.

**Table 1.1:** Numbers of Basic Education Schools, Teachers and Students

No	No. of Schools, Teachers & Students	2007-2008	2013-2014	Increase (%)
1	Basic Education Schools			
	Upper Secondary (high) Schools	1,095	2,795	155.3
	Lower Secondary (Middle) Schools	2,159	3,748	73.6
	Post-Primary and Primary Schools	36,144	36,638	1.4
	Total	39,398	43,181	9.6
2	Teachers			
	High School Teachers	23,192	29,068	25.3
	Middle School Teachers	58,809	71,769	22.0
	Primary School Heads & Teachers	177,331	180,922	2.0
	Total	259,332	281,759	8.6
3	Students			
	High School	657,108	745,946	13.5
	Middle School	2,077,024	2,586,270	24.5
	Primary School	5,042,016	5,265,132	4.4
	Total	7,776,148	8,597,348	10.6

Source: Education for all 2015 National Review Report: Myanmar, 2015

### 1.1.1 Pre-primary School Education

Pre-school education, called early childhood care and education (ECCE), is for children aged less than 5 years, and it mainly focuses on promoting better physical, social, and mental health for children. The Ministry of ECCE is defined as the Ministry of Social Welfare, Relief and Resettlement (MSWRR), and MSWRR and the Ministry of education is implementing together to achieve the early childhood care and education for children. To implement the objectives of the ECCE, there are various organizations and sectors like MSWRR and Ministry of Education (MOE), the Ministry of Health

(MOH), the community-based organization (CBO), United Nations agencies, INGOs and NGO, foundations and the private sector.

The Government and the other organizations opened the 7528 pre-schools in 2005-2006. In 2006-2007, the Ministry of Education expanded the 1,773 schools having pre-primary classes and 36,595 children were enrolled. In addition, there are 1,656 community-based preschools, and the children attendance is 62,400 children. In 2013-2014, the number of community-based Early Childhood development (ECD) centers was about 12,116. In 2013-2014, children under 5 years old were enrolled 111,000 children at 3,277 basic primary schools.

### **1.1.2 Primary School Education**

Myanmar education structure is composed of 5-year primary school, 4-year middle school, and 2-year high school. Primary school education is the foundation of the Myanmar education structure, and it is compulsory education. In recent years, the expenditure of education increased from 0.6% of GDP in 2009-2010 to 2.1% of GDP in 2013-2014. Moreover, the primary education and text books are also free for all primary students. In addition, the government also increases constructions for schools both in villages and in the border areas (World bank data on education, 2010/2011).

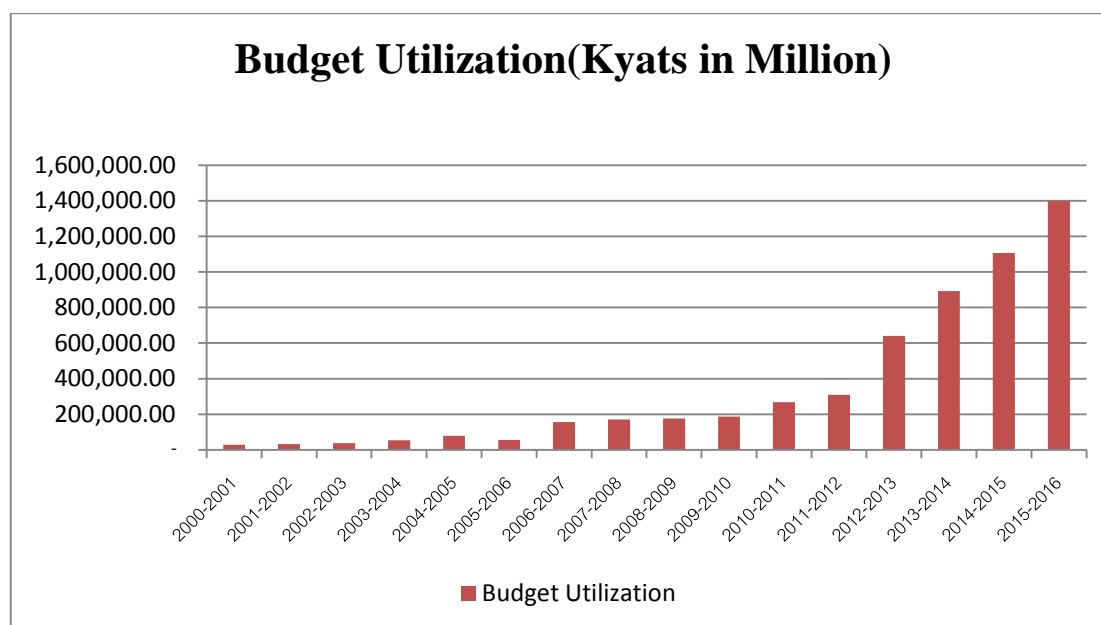
### **1.1.3 Secondary School Education**

The second stage of the Myanmar education system is secondary education that includes the lower secondary education and the upper secondary education. The lower secondary education is for grade 6-9 and the upper secondary education is for grades 10 and 11. Students in Grade 11 have to take chapter end tests and the matriculation examination and the marks of the matriculation examination determine their fields of the universities and colleges. Students who get the higher marks can choose interested universities. The total enrollment of the middle schools was 1,966,653 and the high school enrollment was 632,841 in 2005/2006 (World bank data on education, 2010/2011).



### 1.1.4 Budget Utilization of Ministry of Education

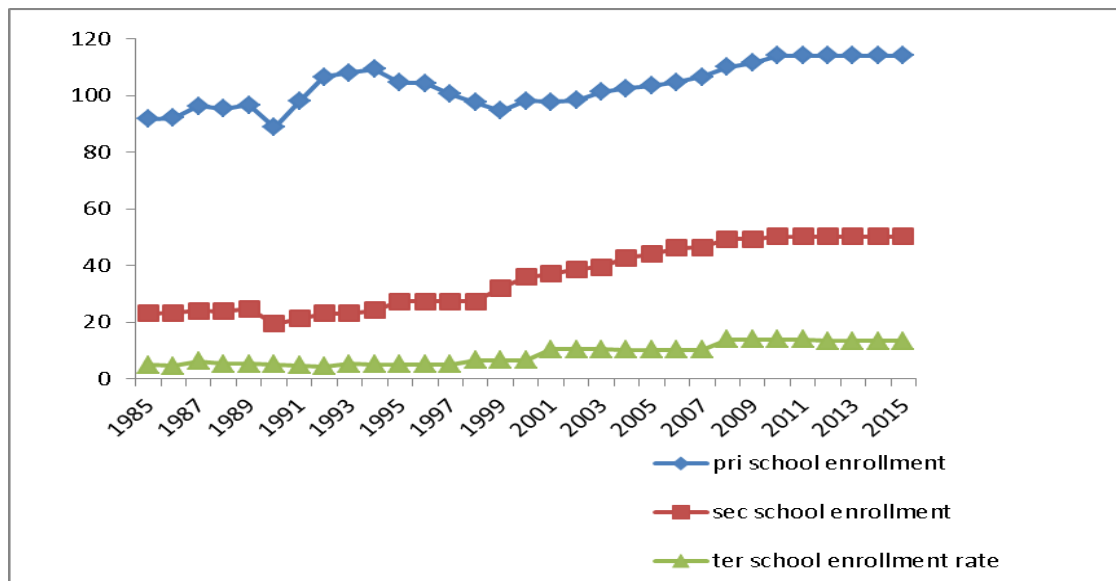
The budget for education utilized under the Ministry of Education is obviously increasing after 2011. The increasing budget for the education sector can be seen in Figure.



Source:: Ministry of Education

**Figure 1.1:** Changes in Budget Utilization of Ministry of Education (2000 to 2015)

The above figure shows the increasing utilization of the education expenditure under the ministry of education during the long term 30 year plan which start from 2000-2001 to 2029- 2030. Education expenditure was slightly increasing trend from 2000 to 2005. However, in the 2005-2006 fiscal years, education expenditure slightly decreased because of the establishment of the Government Technology Colleges and Universities that took over a large amount of the government budget. In 2006-2007, the share of the budget for the Ministry of Education shrunk in this year and the budget share slightly increased before 2012-2013. In 2012-2013, the budget allocation for the Ministry of Education was a peak period because the UNDP government emphasized on the education sector.



Source: World Bank Data

**Figure 1.2:** Enrollment rate % of primary, secondary and tertiary in Myanmar during 1985-2015

Figure 1-2 shows the growth rate of the primary, secondary and the tertiary school enrollment rate. According to the figure, the primary school enrollment rate slightly increased between 1985 and 1989 because the basic educational law was implemented in 1974, and the government tried to improve the education sector. However, in the year 1990, the primary school enrollment rate significantly decreased. The main reason is that there was a low retention rate and a higher dropout rate in the primary level together with high political instability in that period. Most of the Myanmar students were not interested in studying and the family of the students did not motivate their children to attend the school. Also, they could not afford their children education expenses. Parents wanted to get earnings from their children because of their low level of earnings. Most of the Myanmar families were with low level of living standard; that is one factor for the drop-out from school (Lwin, Education in Burma (1945-2000), 2000). Between 1990 and 1994, the primary school enrollment rate significantly increased due to the reforms made in educational sector. From 2000 to 2015, primary school enrollment rate was an increasing trend because the ministry of education mainly focused on the restructure the education system and implemented the policy, plan and strategy to reform the education system. As for the secondary enrollment rate, the same situations can apply as in primary enrollment rate. During

1989-90, was a slight decrease because of political instability and, after that period, it had an increasing trend. This study searches for the answer about how to examine the main factors of the Myanmar's education to improve the basic level of primary school enrollment rate. The research is which are highlighted the main contributors of the Myanmar's basic level of education.

## 1.2 Purpose of the Study

The main objectives of the study are;

1. To analyze the impact of macroeconomic indicators on Myanmar's human capital resources, not only in long-run relationship but also short-run relationship;
2. To examine which macroeconomic variables are more impactful on human capital resources in Myanmar.

## 1.3 Research Designs, Scope and Methods

In this research, the time series data is from 1985-2015. Variables used are gross domestic product growth rate, proxy of education (gross primary school enrollment and gross secondary enrollment), inflation rate as the proxy of macroeconomics instability, education expenditure and the school teachers as the proxy for the determinants of school enrollment rate and the GDPPC as the proxy for the income level of the households.

**Dependent Variables:** Myanmar human capital as the dependent variable is the proxy of education (gross primary school enrollment and gross secondary enrollment in Myanmar).

**Independent Variables:** Independent variables are gross domestic product per capital (GDPPC) as the proxy of the income level for the households, the education expenditure as the percentage of GNI, the inflation rate as the proxy for the macroeconomic instability, the school teachers which impact the school enrolment rate, and the growth rate of GDP of Myanmar.