

The Role of Education in Economic Development: A Comparison of South Korea and Kyrgyzstan

Nargiza Sakmurzaeva (Kyrgyzstan-Turkey Manas University, Kyrgyzstan)

Abstract

Education plays a big role in the economic development of the country. No country can achieve sustainable economic development without educated human capital. Education helps people to understand themselves and world. It improves the quality of their lives and leads to broad social benefits to individuals and society. Education is a very important in raising productivity of people and promotes technological development.

The main purpose of this paper is to identify the role of education in the economic development by comparing South Korea and Kyrgyzstan which are represents developed and developing countries of the world. South Korea, for example, is a highly industrialized and developed country which educational system is in the list of the best 10 systems in the world. In opposite, Kyrgyzstan is an agricultural country which economy is dominated by minerals extraction, agriculture, and reliance on remittances from citizens working abroad. As a result of the research it can be concluded that education is a compulsory and one of the major tools for development of one country. A developing country with a small economy such as Kyrgyzstan should take an example from South Korea and allocate much money from the national budget for the education. So, it is important for Kyrgyzstan to implement educational policy of developed countries within the framework of national policy.

1 Introduction

“Education is the most powerful weapon you can use to change the world” Nelson Mandela.

Education plays a great role in the socio-economic development of every country. Education provides a foundation for development. It is the key to increasing economic efficiency and social consistency. No country can achieve economic success without investment in education. First of all, educated human capital is a very important investment to education. Health and nutrition, primary and secondary education all raise the productivity of workers, rural and urban; secondary education, including vocational, facilitates the acquisition of skills and managerial capacity; tertiary education supports the development of basic science, the appropriate selection of technology imports and the domestic adaptation and development of technologies; secondary and tertiary education also represent critical elements in the development of key institutions, of government, the law, and the financial system, among others, all essential for economic growth (Ozturk, 2001). A lot of studies on economic development demonstrate that there is significant relationship between education level and development elements which are economic growth, political and social development (Levent and Gokkaya, 2014).

Human capital comes from family. It is a foundation of a good society and economic success. Families have differed over time, but they are still very important in the modern economy. Families which are concerned about their children and try, with whatever resources they have, to promote their children’s education and values, effects the raising educated young people. More educated men and women tend to invest more in their own health and the health of their children. Indeed, education may be the single most important personal determinant of a person’s health and life expectancy (Ozturk, 2001). The issue of equity mainly affects disadvantaged groups, including the poor, linguistic, and ethnic minorities, nomads, refugees, and street and working children. The quality of education is poor at all levels in low and middle income countries. No economic development is possible without good education.

It is very crucial to understand that the future is based on education, and on investments in human resources. Some developed countries of Asia such as Japan and South Korea have formed their educational systems even before creating a successful economic system and have allocated much more of its budget for investments in human capital and the education. In order to maximize the effects of the education on the economic development, certain rules must be followed which are mentioned above:

- a quantity and the quality of the education measured in the number of years of studying;
- the percentage of the GDP allocated to education;
- the rate of scholastic participation, the results, the scholar performances must to be high
- the educational offer must correspond to the current demands and to the perspective of the labor market; the existence of a social and economic field, politically stable, and of an accelerated economic growth rhythm; the differences between revenues at an individual level need to correspond to the level of scholastic and professional preparation of the individual (Neamtu, 2015).

All countries, regardless of their national wealth, stand to gain from more and better education. According to a recent OECD report, providing every child with access to education and the skills needed to participate fully in society would boost GDP by an average 28% per year in lower-income countries and 16% per year in high-income

countries for the next 80 years. Today's students need "twenty-first-century skills," like critical thinking, problem solving, creativity, and digital literacy. Learners of all ages need to become familiar with new technologies and cope with rapidly changing workplaces (Brende, 2015). Governments should work with parent and teacher associations, as well as the private sector and civil-society organizations, to find the best and most constructive ways to improve the quality of education.

2 The Role of Education in Economic Development in South Korea

South Korea is the ninth largest economy in the world which economy is well known for high levels of technology and education. South Korea has experienced rapid and unprecedented economic and social achievements since the 1960s. From being one of the world's poorest nations, it has grown to become the ninth largest economy in the world with a GDP of US\$1.75 trillion and per capita income of US\$34,569 (OECD, 2015). The government of South Korea drew up a "Five-year Plan for Science and Technology Education (1967-1971)" in tandem with the second Five Year Economic Development Plan in 1967 to supply manpower necessary for each industry. It increased the quota of science and engineering departments of universities and additionally constructed vocational schools to promote science and technology education and educate science and technology manpower (Ministry of Education of South Korea, 2012).

The Ministry of Education represents a faction of the government that is responsible for the implementation policies regarding science and education. The Ministry of Education claims that the remarkable and fast economic growth of Korea is due to the investment in human resources through education and believes that education will play primary role in national development in the future. In South Korea, educational system is shaped according to the needs of the market. This country showed rapid development in line with its educational plan which is created based on industries needs and expectations while maintaining a supply-demand balance (Park, 2017).

The main features of South Korea's education system are listed below:

- Importance teacher training
- High teacher salaries
- Efficiency in policy implementation
- Strong desire for education
- High private expenditure for education
- Education extreme competition for college entrance
- Using information technologies in education

Education has been considered an important right for long in Korean society. Because of the Confucian tradition of respecting learning and the particular national desire for greater achievements. In South Korea, social hierarchy and status are paramount and a degree from one of the top three elite tertiary institutions, namely Seoul National University, Korea University, and Yonsei University (SKY institutions), provides an invaluable lifetime network and almost guarantees employment in government or in one of the 63 Chaebols family-owned conglomerates) such as Samsung, Hyundai, Lotte, or LG. These companies grew under the support of Park Chung-hee's government industrialization programs that began in the 1960s, and today the sales revenue of the five largest chaebols constitutes almost 58% of South Korea's gross domestic product (Chiang, 2016). As the impact of South Korean economic development expanded, companies came to take interest in education. Industry-academia cooperation became more important and companies increased their investment in education. To foster the manpower companies needed, universities developed diverse educational programs. Korea thus is building a flexible educational system that can more actively respond to social demands (Ministry of Education, 2012).

South Korea's households are convinced that the path to a successful career, and life, is a good education; that is, a university degree at a prestigious university. As the national college-entrance exam is very competitive and university places are limited, Koreans spend a large share of their income on for-profit private tutoring academies called hagwon (Hultberg and Calonge, 2017). South Korean culture and families give a high value on higher education. So, parents expend a lot of money for private after-school classes and private tutors such as hagwon in the aim that children could enter to the most high prestigious tertiary institutions. By high expenditures on private tutors and classes parents give a chance to their children to enter the top universities of South Korea. It means that students, who attends these universities will find good jobs with high salaries in large corporations of the country. Despite the fact that cost of the hagvons rising Korean parents continue to pay for education in order for the best future of their child.

One of the important factors which identifies educational policy in Korea is a teacher training. Contribution to the professional development of teachers placed great importance in South Korea. Teachers in South Korea are one of the most coveted jobs excellent students choose. Excellent institutions educating teachers are enabling teachers to get high-quality education. Of all teachers, 30.8 percent have degrees over master's degree (Ministry of Education, 2015). Here there is an important another factor is teacher's salary. Because salary effects employee's

productivity and job satisfaction. Teachers' salaries are very high than many countries and it increases according to the degree in South Korea. In Table 2 we can see the comparison of teacher salaries in few OECD countries (OECD, 2013). According to the PISA data which would be discussed in next paragraph if the countries compared, there is a relationship between student's performance and teacher salaries (Levent and Gokkaya, 2014).

Country	The Institution of teacher work							
	Primary				Secondary			
	Starting salary	Salaries in next 10 years	Salaries in next 15 years	Most of senior Teacher salaries	Starting salary	Salaries in next 10 years	Salaries in next 15 years	Most of senior Teacher salaries
Swiss	53599	67942	-	83105	61437	79032	-	94038
Germany	530262	-	64491	70332	57357	-	69715	79088
South Korea	27476	41261	48146	76423	27476	41268	48146	76423
Austria	32973	40124	45105	64510	33398	359755	46317	67444
Netherlands	38941	53256	63695	66117	38941	53256	63695	66117
Ireland	34604	49060	54954	62166	34604	49060	54954	62166
Japan	26031	38665	45741	57621	26031	38665	54741	59197

Table 1. Teacher Salaries in Some OECD Countries

Success of countries in education systems are evaluated with different exams all over the world. One of the most popular is PISA. PISA or Program for International Student Assessment is comprehensive exam, which is prepared to determine student's knowledge, who completed compulsory education students, 15 years old in OECD. PISA compares efficiency student's knowledge in view today's information society. Structure of PISA determines student success multidimensionally about mathematics, science and reading. PISA is managed by cooperation Education Department of OECD and countries ministry of education. Each country has its own exam committee. Students attending exam are selected randomly using special software program. Countries made education planning and identified new policy and strategy with using success of PISA which is made period of three years. In 2012, totally 65 countries - 34 member countries and 31 nonmember countries of OECD - participated in exam (Levent and Gokkaya, 2014). Korea showed a high level of academic achievement in all subjects, including reading, mathematics, and science (Number of countries participating in the evaluation: 41 countries in 2003, 57 countries in 2006, and 65 countries in 2009 and 2012) (Ministry of Education, 2012).

	2000		2003		2006		2009		2012	
	Score	Rank								
Reading	525	7	534	4	556	1	539	2	536	5
Mathematic	547	3	542	3	547	3	546	4	554	5
Science	552	1	538	2	522	11	538	6	538	7

Table 2. Results of South Korea in PISA (PISA 2012 Results in Focus, adapted from OECD 2014)

South Korea's annual PISA results which are given at Table 1. It is possible to see South Korea has first place about science in 2000 and in reading in 2006. The best results in international exams such as PISA underlines that Korea gives a great role to education in order to have economic success.

3 The Role of Education in Kyrgyzstan

After the dissolution of the Soviet Union Kyrgyzstan transitioned toward a free market economy, which has had crucially effect on the political, economical, cultural and educational system of the country. Kyrgyzstan began to implementation of educational experiments towards democratic principles and on pluralism values. The key guiding lines were quality, efficiency and accessibility. According to the Constitution of the country which received on 5th May in 1993, education is free and compulsory for everyone. In 2000's the Law on Education dated, according to it the education system is based on the following main principles.

-free access to elementary, secondary and higher education in public institutions within the limits set by the state educational standards,

-the possibility of receiving education on a commercial basis, including in state educational institutions,

-the humanistic character of education,

-independence of education from political and religious institutions and the secular character of education,

-academic freedom of educational organisations, academic integrity.

The state provided for compulsory undertaking of free basic education to promote literacy. Higher educational attainment became a privilege common to well-off individuals. But there are educational grants which is given to students with high performance from countrysides. General educational program provides for three classified

levels namely, basic primary education (grades one to four), basic secondary education (grades five to nine) and high school education (grades ten to eleven). These aim to instill knowledge, skills, and preparation to higher education.

The post school education process in Kyrgyzstan is complex and includes various opportunities for students. Primary professional education is provided through short courses. Secondary professional education is through colleges for 4 years, if secondary school has been completed than for 2 years. Academies, institutes, higher colleges and universities provides tertiary education with undergraduate and graduate programs. Of these oldest is Kyrgyz State Technical University which was established in 1954. Its faculties include information technology, power, transport and machine construction, technology and mining production. There are 54 higher education institutions in Kyrgyzstan, 33 public and 21 private institutions.

Kyrgyzstan is a developing agrarian country with a weak small economy and unstable politics. Thus, country faces a lot of difficulties in the national development. First of all, education does not play a great role in the socio-economic development of the country. It means that there is not given importance to education as a crucial factor in the development of economy of Kyrgyzstan. It has several reasons. First of all, in Kyrgyzstan we have not any tradition like Confucian in Korea which can emphasize the crucial role of learning and education for people. While Koreans understand that education is very important and necessary for good life, Kyrgyz people do not recognize education as necessary for the future of children. It can be explained by the mentality of Kyrgyz in understanding the role of education. Because educational system in Kyrgyzstan is very weak and full of different problems. The quality of education is very low. Among the elements that characterize an educational system of Kyrgyzstan, we can mention difficulty to administer the necessary funds to the investments in education.

One of the big problems in Kyrgyzstan which covers the educational system too, is high level of corruption. It creates a chain of difficulties which are strongly connected with each other. Corruption very negatively effects on the national development in every system in education process. Beginning with pre-primary school finishing in the system of higher institutions corruption take places. Because of the not enough state kindergartens in Bishkek in enrolling children ages 2 to 6 to kindergartens parents are used to choose corruption way. Primary and secondary schools have the same problems. To pass the entrance exams for schools, parents give money to teachers in order their children could enroll the school. So, from the kindergartens and schools, corruption take places and really damage the procedure of accepting children for schools. According to the Law compulsory education is free and access to everybody, but in real life it is very difficult to implement it.

Teacher profession is not regarded profession in Kyrgyzstan. The main reason is a very low salary (6000 som in beginning). Young people do not want to choose this profession when they enter the university. After the graduation students can find job as a teacher very easy, because nowadays around 2000 teacher is demanding. So, a problem is in teacher's salary. Nobody wants to work for low salary which is not enough for good standards of life. By the way, government do not try to stimulate young people to become a teacher. One reason is also mentality of people. Parents themselves do not support and stimulate children in choosing teachers profession. While in Korea parents make big efforts in order that their children become a teacher. Because teacher is a very regarded profession with high salary. In Kyrgyzstan, most of the parents want their children enroll the university in order to work in finance, banking and economic sector to earn much money. Also, Kyrgyz parents give importance to the prestige of the profession. In this case, unfortunately, teacher is not in the list of prestigious professions according to most of Kyrgyz parents. So, it creates a really big problem in formation of educated human workforce which should lead the country to development and prosperity. People must change stereotypes and beliefs about what profession is necessary and useful for the national development of the country.

One of the most important problem is the quality of education. The quality of education is decreasing last years. It is affected by several factors. First problem is about teacher. Because students' performance mostly depends on teacher's qualification and skills. As mentioned in previous paragraph, there is a demand for teachers (2430). It means that students could not get enough subjects because of absence of teachers. This problem is very crucial, especially, in schools of countryside. When a teacher of literature gives other classes such as biology or mathematics. It leads to decreasing the performance of students. In 2006 and 2009, twice Kyrgyzstan took place in PISA which was mentioned above. In both exams, unfortunately, Kyrgyzstan showed the worse results. In 2006, 57 countries took place, Kyrgyzstan with unsuccessful results was the last one. In 2009, the same situation take place the last place in the list of total 65 countries. After these not good performance Kyrgyzstan did not take part in PISA. Here it can be concluded that there is really a big problem in the quality of education.

The increasing number of Kyrgyz migrants to abroad is also a crucial social problem which negatively affects the educational system. It is connected with the quality and access to the education. Last years, more citizens of the country become migrants to Russia, Turkey USA, South Korea, and other countries. Because of high unemployment in Kyrgyzstan people go abroad. This process leads to social problems which impacts different systems like families, education, healthcare and other. When parents go abroad for a better life, children stay with grandparents or other relatives who could not look after the children like parents. Thus, children whom parents are migrants abroad, do not regularly attends classes which lead to the non-interest for school. By this way performance of students are decreasing. In other hands, migrants who have tertiary education and could be useful

for the country's development go away and create a brain migration. There are a lot of studies on migration, therefore here it will be enough mentioned only its negative impact on the quality of education.

The government should implement effective educational policies by creating a well-educated manpower which is necessary for the economic development of the country. Expenditures for education system must be increased and due to the investments for the education, they must be strictly controlled during the using. Corruption must be restricted in any way in every system of the country. Because corruption in the higher educational system disturbs to the creation of well-educated and skilled human resources. Students do not attend classes and passed exams by using corruptional instruments. As the results, the educational system is devastated and the quality is decreased.

4 Conclusion

Education plays a big role in the socio-economic development of any country, both in developing and developed. In the economic development one of the most important factor is human capital, which means the workforce of the country. Having well educated manpower is the most important factor for the development of the country. Country's development is not possible in the real sense without giving importance to the education of the people.

South Korea has become an economically developed country which was one of the poorest countries dependent on external aid in 1960's, but in 2000's engaged in technology export to the outside world. Five-year Economic development plan has a great role in the development of the country which was implemented from 1962 to 1997. Education successfully played a great role in Korea's national development. One of the results of this study is that be understood that higher education has a positive impact on the growth of the economy of South Korea. The enrollment of students in higher education means more skilled labor which leads to a positive impact on GDP. In South Korea, families currently invest in private tutors and hagwons at primary level, with the hope of the child being able to enroll in a better tertiary institution in the future and, therefore, secure a higher lifetime income. South Korea provides consulting services to developing countries such as Kyrgyzstan about using information and communication technologies in education, planning and related to the execution of different projects.

In Kyrgyzstan, the educational system must be oriented to satisfy the real demands presents on labor market. Taking into consideration that workforce that Kyrgyzstan has, both private and public allocations oriented in human resources must become a priority for the government policies. To be able to develop and aspire to a sustainable growth we need a well-trained and developed human capital. As it mentioned in the paper, Kyrgyzstan has a lot of socio-economic problems like a chain interconnected with each other. So, Kyrgyzstan try to change the way of developing by taking into account the model of developed countries like South Korea. Especially give a big importance to the educational system which create educated and skilled human capital to develop the country.

References

- Borge Brende. "Why education is the key to development", 2015. <https://www.weforum.org/agenda/2015/07/why-education-is-the-key-to-development/>
- Chiang, M. H. 2016. Chaebol's role in South Korea's economic development (EAI Background Brief No. 1153). <http://www.eai.nus.edu.sg/publications/files/BB1153.pdf>
- Daniela Mihaela Neamutu. "Education, the economic development pillar", *Procedia - Social and Behavioral Sciences* **180** .2015. p.413 – 420.
- Faruk Levent and Zeynep Gokkaya. 2014. "Education Policies Underlying South Korea's Economic Success". *Journal Plus Education*, **10**. p.275-277.
- Jong-Wha Lee. "Economic Growth and Human Development in The Republic of Korea, 1945-1992 ", *Occasional Paper* **24**, <http://smesindia.net/wp-content/uploads/2013/09/Korea.pdf>
- Ilhan Ozturk. "The role of education in economic development: a theoretical perspective", MPRA Paper No/9023, 2008.
- Ministry of Education of South Korea. 2012.
- Ministry of Education of Kyrgyz republic. 2015
- OECD. 2016. PISA 2015 results (Volume I): Excellence and equity in education. Paris: OECD Publishing. doi:10.1787/9789264266490-en.
- OECD.2015. Suicide. In Health at a glance 2015: OECD indicators. Paris: Author.
- Patrik Hultberg, David Santandreu Calonge and Seong-Hee Kim. "Education Policy in South Korea: A contemporary model of human capital accumulation?", *Cogent Economics&Finance* **5**. 2017
- Sonya Verdieva. What role does education play in country's economic development? The Politicon. 2017. <http://thepoliticon.net/slider/157-what-role-does-education-play-in-countrys-economic-development.html>
- Sun Young Park. "Clarifying the Characteristics and Exploring the Collaboration of Citizenship and Character Education in South Korea". *Journal of Social Science Education*, **16**. 2017. p.23