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Higher education development in Korea: western university ideas, Confucian tradition, and economic development

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Abstract The features of Korean higher education development are related to socio-cultural tradition (Confucian tradition), the model university ideas, and economic development in Korea. The modern university ideas adopted in Korean are based on the German model which was established by the Japanese colonial government and drawing on the US university model after the World War II. However, the modern university ideas are intertwined with socio-cultural factors and have been embedded in current Korean universities. As well as the western ideas and the Confucian tradition, the growth of Korean higher education has relied upon the rapid growth of the Korean economy. Education development is well aligned with economic development in Korea thanks to government policy initiatives. This framework can be applied in the analysis of higher education development in other countries. Higher education development cannot be solely explained by individual cultural, historical or economic factor. These three factors are interlinked and influence the development of Korean higher education.

Keywords Korean higher education · Higher education development · Confucianism · Economic development

Introduction

Korean higher education has been rapidly growing during last six decades. This growth is seen both in the quality of education as well as in quantity. The extent of this accomplishment is clear when we compare Korean higher education to other developing countries. When Korea gained independence from Japan in 1945, its higher education was quite limited with only 7,819 students enrolled in colleges (Lee 1989). By 2008, the tertiary enrollment rate was 98% which is the highest among the Organization for Economic Cooperation and Development (OECD) countries. This is related to Korea's rapid economic growth since the 1960s. Economic growth has provided a job market for college

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graduates and enabled the government to invest public funding in higher education which in turn has provided high quality human resources for economic growth. These cyclical chains of higher education-economic growth have been developed through strong governmental leadership.

Since the mid-1990s, the quantity and quality of Korean higher education has been transformed through a comprehensive education reform policy (5.31 Education Reform) established by the Kim Young-Sam Administration (1993–1997). The Presidential Commission on Education Reform proposed 120 reform agendas. Of these, 14 agendas were related to higher education. These reform agendas were designed to enhance the quality of education as well as to provide better and more opportunities for diverse higher education clients (Presidential Commission on Education Reform 1997). Most of the policy agendas were continued by the Kim Dae-Jung Administration (1998–2002) and the Rho Mu Hyun Administration (2003–2007) (Presidential Commission on Education Innovation 2007). These policy efforts enabled Korean higher education to grow qualitatively as well as quantitatively.

In the late 1990s and the 2000s, the policy focus shifted towards knowledge production and national competitiveness in high-tech areas (Park and Leydesdorff 2010). The Korean government began to invest aggressively in research and development (R&D). For example, the Brain Korea 21 (BK 21) project is one of the well known projects (for details, see Shin 2009) and subsequent policy initiatives such as World Class University, Humanity Korea (HK), Social Science Korea (SSK) were initiated by the Korean government in the late 2000s. Academic productivity by Korean researchers has increased significantly through these policy efforts. About 20 times more articles were published between 1990 and 2008 (1,382 articles in 1990 compared with 26,690 in 2008) (my calculation based on Web of Science data).

One question often asked is how has Korea accomplished such impressive growth in higher education at the same time as the economy has grown. Korean higher education and economic development mutually reinforce one another. Well trained human resources accelerated the economic productivity, and economic development generated resources to invest in higher education development. The success story of Korean higher education might be better understood through comparative discussions about other Asian higher education systems. This paper therefore discusses Korean higher education development in the context of East Asian higher education. In the discussion, this paper focuses on three factors (western university ideas, the Confucian tradition, and the co-development of economy and higher education) to explain higher education development in Korea.

Higher education development in Korea

A brief discussion of some of the features of higher education development in Korea provides background knowledge for the following discussions. Specifically, this section pays attention to the policy approaches of the Korean government in the development of higher education. These policy approaches have implications for other countries. In an analytical review of government policy and the growth of Korean education, three characteristics are identified: an incremental approach to access from elementary to higher education, private institution-led enrollment growth, and an approach where quantity leads quality.

First, the rapid growth of Korean higher education is not independent of the growth of elementary and secondary education. The incremental approach was not intentionally

designed by the government to develop education; rather, the incremental approach was a policy response to educational demand (Kim 2007). However, the demand for education and the policy response were interrelated and encouraged upward development from elementary to graduate education. Student enrollments reached their highest point in the late 1960s; middle school enrollments grew rapidly in the 1970s and mid-1980s; high school enrollments grew in the 1970s and the 1980s; higher education enrollments in the 1980s and 1990s; graduate enrollments in the 2000s (for details, see Fig. 2). These trends show that Korean education has developed incrementally from elementary to graduate education over a period of six decades. Table 1 shows education development in Korea during the last six decades in terms of student enrollment, the national economy, and educational budget.

The incremental approach provided educational opportunity at the lower levels, but produced a bottle-neck at the upper levels (Byun 2010; Kim 2007). For example, many of the elementary school graduates had to wait for middle school admission which required applicants to pass a competitive examination. The competition was noticeable in highly rated middle schools because the student quota was very limited. As result, there was a long waiting list and some students even took private tutoring from upper high school students or college students. The middle school admission and its rigid hierarchy became an issue of concern. The government's response in 1971 was to expand middle school quotas and break the rigid hierarchy between middle schools through an exam-free middle school admission policy.

The bottle neck then moved up to high school because many middle school graduates who were admitted without an exam moved on to study at high school, especially at highly reputed schools. Three years after the exam-free middle school admission policy in 1974, the Korean government adopted a high school zone policy (or high school equalization policy—for details, see Byun 2010) to minimize the intense competition between high school applicants. The government began to apply the policy in metropolitan and mid-size cities. The high school zone enabled students to be admitted by a local school when they passed a high school admission exam. In addition, the government encouraged the establishment of high schools by providing teachers' salary and operating budgets for private schools.

Through the exam-free admission policy and high school zone policy, the competition between students moved to the exam for college and university admission. In the late 1970s, many high school graduates who had been admitted to high school under the school zone policy found themselves on a long waiting list for college admission. To respond to this dilemma, the Korean government adopted a policy to expand the student quota by allowing colleges to increase admissions by 130%. This policy led to the first stage of higher education enrollment growth in the 1980s. The enrollment growth began to accelerate in the early 1990s (the second growth spurt) when the government chartered many private higher education institutions and increased the student quota again in 1990. Finally, a qualitative shift started when undergraduate enrollment plateaued in the early 2000s, and graduate enrollment began to increase (the third growth stage).

Second, the rapid expansion of Korean higher education has mostly relied on the private sector. Korea has the greatest proportion of privately-funded educational institutions among the OECD countries (Shin and Harman 2009). Student enrollment in the private sector is over 80%. A private sector-led growth of higher education is a feature of a fast growing higher education market in other countries also such as Eastern European countries, Brazil, India, and China (Levy 2006). Among the developed countries, the USA, Japan, Taiwan, and Korea have a large share of private institutions. Unlike European

Table 1 School Enrollment, Economy, and Education Budget in Korea

Year	Elementary S. enrollment	Middle S. enrollment	High S. enrollment	Tertiary enrollment	Graduate enrollment	GDP per capita(US$)	Education bud. total (Million KW)	HE bud. (Million KW)	R&D exp. (Million KW)
1965	4,941,345	751,341	426,531	127,126	3,842	106	15,331	1,915	–
1970	5,749,301	1,318,808	590,382	163,511	6,640	279	78,478	6,635	10,547
1975	5,599,074	2,026,823	1,123,017	221,277	13,870	608	227,925	20,439	42,664
1980	5,658,002	2,471,997	1,696,792	563,748	33,939	1,674	1,099,159	144,967	211,727
1985	4,856,752	2,782,173	2,152,802	1,192,172	68,178	2,368	2,492,308	196,691	1,155,156
1990	4,868,520	2,275,751	2,283,806	1,379,951	86,911	6,153	5,062,431	409,782	3,210,486
1995	3,905,163	2,481,848	2,157,880	2,212,852	112,728	11,468	12,495,810	1,105,913	9,440,606
2000	4,019,991	1,860,539	2,071,468	3,130,251	229,437	11,347	19,172,027	1,782,249	13,848,501
2005	4,022,801	2,010,704	1,762,896	3,208,645	276,918	17,551	27,982,002	2,537,458	24,155,414
2010	3,299,094	1,974,798	1,962,356	3,223,734	316,633	20,510	41,627,519	4,635,494	37,928,500

Data Sources: (a) *Annual Education Statistics* (Korean Education Development Institute, 1965–2010). (b) *Report on the Survey of Research and Development in Science and Technology* (Ministry of Education, Science and Technology, 1970–2010)

Notes: (a) GDP per Capita, education budget and R&D expenditure are current price. (b) Tertiary enrollment includes junior college, polytech, and university

countries where private higher education was not welcomed by their governments, the Korean government adopted a flexible policy concerning the chartering of private institutions. The government's progressive policy toward private institutions allowed the government to reallocate resources for investment in elementary and secondary education, as well as in R&D. However, there was an issue with an underfunded government budget for higher education compared with elementary and secondary education.

Third, in the periods of expansion of higher education the Korean government also paid attention to the quality of higher education. Three governmental efforts were initiated to enhance the quality of higher education. The three policy initiatives were a quality assurance framework, evaluation-based budget allocation systems, and aggressive research funding systems. Through these initiatives, the Korean government began to emphasize equally the quality of higher education as well as expanding access to higher education.

- First, the Korean government adopted a quality framework to maintain quality during the period of fast growing higher education enrollment. For example, the government adopted a university evaluation system in 1982 immediately after the increase of student enrollment by 130% in 1980. This evaluation system was transformed into an accreditation system in 1994 during the second stage of higher education enrollment increase.
- Second, the Korean government adopted an evaluation-based budget allocation system in which institutional performance and university reform plans are weighted as the determinants of resource allocation (Shin and Jang 2011). The budget mechanism was expanded rapidly in the early 1990s and in 2008 the share of evaluation-based budget allocation was 90% of the total higher education budget.
- Third, the Korean government began to provide research funding to enhance the country's competitiveness in the global economy. To this end, the Korean government and private corporations began to aggressively invest R&D. The share of R&D in the GDP was the highest (at 3.5%) among the OECD countries in 2008.

Western university ideas, Confucian tradition, and economic development

Higher education scholars use diverse perspectives to address higher education development in Asian countries, especially in East Asia. This section explains higher education development in Korea in terms of three factors—western university ideas, the Confucian tradition, and economic development. The discussion enables readers to compare Korean higher education development with that of other Asian countries. While the cultural tradition and the western influence have been imposed on each country, some have been able to move forward while others remain 'stuck'.

Although there have been long standing higher learning institutions in East Asia including Korea, modern university ideas developed in the Western countries and were imported into East Asia in the 1800s. Although it is simplistic, well-known modern university ideas of the German, English, and French models are influential in their former colonial regions as well as in their own territory. Among these, the English and German models were imported and reshaped as the US modern university in the late 1800s (Clark 1983). The US modern university has been a strong influence in the East Asian countries since World War II (Altbach 1989; Cummings 2003).

East Asian countries have adopted modern university ideas and integrated them into the educational and cultural traditions of the region. For example, although higher education in

Malaysia, Singapore, and Hong Kong China is based on the British model (Altbach 1989), these countries demonstrate different patterns of enrollment growth, academic culture, and governance systems. In East Asia, the Confucian tradition has strongly influenced their education, culture and social life in general. The adopted modern university idea has interacted with the educational and cultural traditions and has led to the current university development of the East Asia, especially in the North-East Asian countries (e.g., China, Japan, and Korea). In addition, economic factors should be acknowledged when discussing university development in East Asian countries (e.g., Marginson 2011; St. George 2006). The recent development of higher education in East Asian countries is closely associated with economic development in the region.

Through their interaction, these three factors have influenced higher education development in Korea as well as in other East Asian countries (e.g., China, Japan, and Taiwan). The western ideas provided a basis for the university model (contents, governance, administration, academic culture etc.), cultural and education tradition together influenced university development, and economic development drove higher education development.

Western university ideas

As Altbach (1989) and Cummings (2003) have pointed out, East Asian countries imported the idea of the modern university from western countries, such as Britain, Germany, France, and the U.S. These models were transplanted during colonization and are still influential in contemporary higher education in Asian countries. The one exception is Japan which imported the German model in the 1870s without undergoing colonization and developed its own model (Cummings 2003; Nakayama 1989). In contemporary higher education, the US model is very influential in Asian countries because these countries tend to benchmark the American university system (e.g., Kim 2007; Ma 2009; Wu et al. 1989).

The differences among East Asian higher education systems may stem from the different ideas about modern higher education in each country. For example, Great Britain influenced higher education in Singapore, Malaysia, and Hong Kong China. The German research university model has influenced Japanese higher education and in turn the idea was implanted in Japan's former colonies of Korea, Taiwan and in some local areas in mainland China (e.g., Altbach 1989; Cummings 2003; Hayhoe 1995). French higher education had an impact on Vietnamese higher education. Clearly, western educational ideas have left a legacy in contemporary East Asian higher education and these influences have been maintained through continuous interactions with the West (Altbach 1989).

Similar to most Asian countries, Korean higher education has been considerably influenced by western higher education. Modern Korean universities can trace their origins back to one of three sources: western missionary-established education, Japanese colonial government-established, and education philanthropist-established institutions (Shin 2011). Although the three types differ in their focus, most of the elements of the modern Korean university (e.g., academic courses, governance, academic organization, and teaching and research) came from the western university model through western missionaries, and Japanese or educated Korean leaders.

In 1924, during the Japanese colonial periods (1910–1945), the colonial government established Kyungsung Imperial University modeled after Tokyo Imperial University. The Kyungsung Imperial University adopted the German model through the Tokyo Imperial University which itself was modeled on the German universities (e.g., Kim 2007; Lee 1989). Since independence from Japan, however, Korean universities have imported many ideas from US universities (Lee 1989). For example, the former Kyungsung Imperial

University was reorganized as Seoul National University in 1946 when the American military was ruling the southern Korean peninsula.

Since then, many students have studied abroad and brought back ideas from the west, especially from US universities. According to Lee (1989), 111 scholars were trained at a US university between 1945 and 1950. These scholars brought back ideas from the West to incorporate into Korean universities. Currently, 40% of all Korean academics have been trained at a foreign university, and this rate of foreign trained professors has remained at similar levels since the 1960s. This suggests that western universities have had a continuous influence on Korean universities although Korean higher education was already established and its performance noticed worldwide (e.g., Leydesdorff and Shin 2011; Leydesdorff and Zhou 2005).

The US model is represented by dual systems of undergraduate and graduate education, departmental systems in academic administration, shared governance, differences in mission between institutions, course-based education, and the credit hour system (Clark 1983). The conventional German university has quite different features from the US model. For example, the German university emphasizes academic freedom, a rigid hierarchy between academics, and grants supreme power to the departmental chair. Their system is also marked by seminar-based academic training, equal social status of all universities across the country, and most of the universities are public (Clark 1983).

The current Korean higher education system is a hybrid of the German model (through the Japanese model) and the US model (e.g., Altbach 1989; Kim 2007). Some features of the German model are embedded in Korean higher education. For example, Korean scholars emphasize seniority in their academic relationship (Shin and Jang 2011), policymakers consider all universities as equals, and government policy does not acknowledge institutional diversity in its administration (Shin et al. 2007). On the other hand, Korean universities have been influenced by US universities, adopting the US department system (rather than the German chair system), course-based credit hour (rather than the German seminar course), charging students for tuition, and relying on the private sector to provide a large proportion of higher education. In point of fact, US models have been influencing higher education worldwide. Even European universities benchmark US universities to enhance their competitiveness in the global economy (Teichler 2009).

The US model provided the basis for the transformation of Korean higher education from elite to mass and universal higher education. The German notion of university being for selected elite students whereas the US is more open to the general public as well as selected elite students. By adopting US ideas, Korean policymakers began to encourage the rapid growth of university education. Many US university trained professors in Korea aggressively adopted innovative curricula and instructional methods as well as credit-based course systems and efficient administrative units (department systems) (Lee 1989). Together, these enabled Korean universities to absorb the rapid increase of university enrollment.

Confucian tradition

Vogel (1991) explains the rapid economic development of East Asian countries from the perspective of the Confucian tradition as well as in terms of political factors (e.g., strong leadership, effective policy, state planning, and talented bureaucrats). Similarly, the Confucian tradition is used to explain education development. For example, Marginson (2011) discusses four features of the Confucian tradition that relate to higher education development in East Asia: strong government initiatives, private investment in

accomplishing universal higher education, one chance college entrance examination, and extensive investment to establish a world-class research university. These features may explain how the Confucian tradition has systematically influenced the development of higher education.

Among these features, a key factor is "education enthusiasm" in East Asian society. Just as the Judeo-Christian tradition is at the core of socio-cultural systems in Western society, Confucianism is at the center of social and cultural systems in East Asian countries (Lee 2002; St. George 2006). From a comparative perspective, this cultural tradition produced similarities in higher education development between some East Asian countries (e.g., Hayhoe 1995; Marginson 2011). In the Confucian culture, an exam-based filtering system was developed and education has functioned as a way to improve social status. The cultural tradition may be related to the rapid growth of education including higher education. These countries show noticeable growth in knowledge-based innovations also (e.g., Arimoto 2009; Chang et al. 2009; Marginson 2011).

The Confucian tradition had a profound impact on modern higher education in Korea. First of all, Koreans have a strong desire for education (educational enthusiasm). As Lee (2002) argued, "...the educational enthusiasm of the Korean people was a major factor to expand ["in expanding"] the national higher education as well as to develop the national economy (p. 59)." Because of the strong desire to educate their children, parents invest a considerable proportion of their household income in their children's education. This desire for education drives the development of education, but it also brings problems such as over-education and shadow education at the same time (e.g., Dawson 2010; Lee et al. 2010).

Second, another social heritage of the Confucian tradition is the examination-based resource allocation in society. Education systems have been used as a way to filter out high ability people for public office and to limit educational opportunity for others. Both official employment systems and educational systems are highly interrelated and examinations have been used since the Silla Dynasty in the late-8th century (A.D. 788) (Lee 2002). The examination based filtering systems have been applied in modern Korean education. Because of the strong social demands for higher education, the Korean government adopted a new policy to lighten the exam burden and to provide more opportunity for high school graduates in 1980 (Kim and Woo 2009). Since then, Korea has become one of the fastest growing higher education systems in the world.

Third, because of the strong desire for education and an exam-based filtering system, there has been intense competition for admittance to prestigious institutions including overseas universities. This competition led to a rigid hierarchy between universities (Kim 2007). This competition and the rigid hierarchy is a continuing issue in contemporary higher education. Ranking which is another aspect of competition has been an issue among East Asian countries, e.g., Korea, Japan, Taiwan, and China. Studying in a top ranked university significantly influence the later success of graduates because the alumni become a strong network. Consequently, students who failed to gain entry to top ranked universities attempt admission to highly ranked universities repeatedly. This intense competition between students and universities has enabled Koreans to achieve extremely rapid growth in higher education over the past six decades (e.g., Kim and Lee 2006; Kim and Woo 2009).

Fourth, 'user pays' is widely applied in public as well as private higher education in Korea. In 2007, for example, 14.2% of the education budget (more specifically the budget of Korean Ministry of Education) went to tertiary education with 86.8% going to the other education sectors (Kindergarten, elementary, secondary, and adult education). This share

of budget for tertiary education is quite low when compared with other countries: for example, 23.3% in Australia, 21.9% in France, 31.0% in Hong Kong China, 18.4% in Japan, 23.7% USA, 17.4% in UK in 2008 (data based on World Bank). Private institutions generate most of their operational budget (about 50–60%) from student tuition. An important issue is how can students and parents pay such a large share of university tuition. A low tax rate helps, as Salerno (2004) has pointed out in his paper on private higher education and public funding. Koreans pay about 26% of their GDP as tax while in 2008 the tax rate of OECD countries averaged 35% and North European countries over 40%. In addition, rapid economic growth provides job opportunities enabling parents to pay for university tuition for their children. Korea's unemployment rate of 4% in 2009 was the lowest among the OECD countries.

Economic development and higher education

Economic development may explain the differences in higher education development across countries sharing a similar cultural tradition (in this paper, mostly the Confucian tradition) and influenced by the Western university ideas. One can argue that economic development contributes to higher education and vice versa, since higher education contributes to economic development through training human resources and providing a knowledge-base for industrial development. The training of human resources can be measured by the level of tertiary enrollment. While the causality between the rate of higher education enrollment and economic growth may be controversial (e.g., Psacharopoulos and Patrinos 2004; Windolf 1992; Wolf 2002), both are closely interrelated. The countries with the fastest growing higher education (e.g., Korea, China, Taiwan, Singapore etc.) also have the fastest growing economies.

The close link between economic development and higher education may explain why Asian countries differ in their higher education enrollment rate although they share the same culture (Confucian) and university ideas (Western models) (Hayhoe 1995). For example, although Japan, Korea, and Taiwan share the same university model and Confucian tradition, higher education development differs in each country according to their economic development. Similarly, while Singapore and Malaysia share similar cultural and historical contexts, both countries differ in higher education development. The close relationship between higher education and economic development is demonstrated in Fig. 1 where GDP per capita and tertiary enrollment is associated on the regression line.

According to this, most countries are located close to the average (regression line) except Korea which shows a relatively high tertiary enrollment compared to its economic development. From an economic point of view, higher education enrollment has both positive and also negative sides (e.g., Heckman 2003). Although access to higher education has been emphasized and many countries have focused on enhancing tertiary enrollment, an oversupply of tertiary educated people is a cause of unemployment and may be an obstacle to further economic development (e.g., Wang 2003; Wang and Liu 2010). On the other hand, under-education is also detrimental to economic development, especially in a knowledge-based economy.

In the knowledge economy, academic discussion on higher education development moves its focus from enrollment growth to academic productivity (e.g., Altbach 2009; Shin and Cummings 2010) because knowledge is the source of national competitiveness. Enrollment may represent the quantity of higher education while academic productivity represents another higher education output. Further, higher education scholars begin to focus on the quality as well as the quantity of knowledge production. Along the same lines,

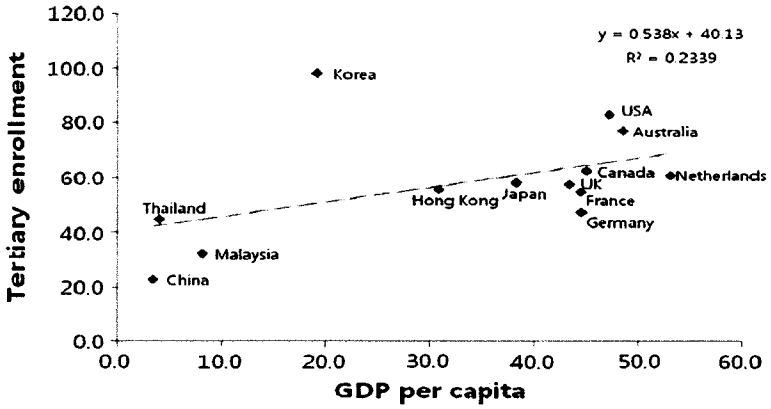

Fig. 1 Tertiary education enrollment rate (%) and GDP. *Notes*: GDP is thousand US$ in 2008

scholars begin to measure how knowledge production correlates with industrial development in each country (e.g., Park and Leydesdorff 2010).

A noticeable feature of Korean higher education is that its growth has been closely related to economic development. Government policy has promoted this relationship. When the Park Jung-Hee government took power in 1961, it established a long-term plan with economic development as its primary focus. This policy was continued by President Park from 1961 to 1979 and by subsequent governments, emphasizing the development of human resources to stimulate economic development. During this period, national policy focused on economic development and the policies for other sectors were regarded as supplementary to economic development (e.g., Kim 1997; Kwack 1998; Rha and Byun 2007). For example, it was believed that the rights of workers, freedom of speech, and academic freedom could be sacrificed in favor of economic development. Education was not regarded as independent from economic development, but as a supporting system through producing a trained and educated population. This is similar to other Asian countries where economic development is the priority (e.g., Cummings 2011; Wu et al. 1989; Wang and Liu 2010).

The contribution of education to economic development in Korea has been supported by rate of return studies (e.g., Kim 1986, 1997). This can be understood by reviewing the interrelatedness of industrial development and education development over the past four decades (Choi 1997). For example, elementary education provided critical manpower for labor intensive industry (light industry) in the 1960s and early 1970s. Secondary education was critical for chemical and heavy industry in the 1970s and in the early 1980s when this was the focus of economic development. Higher education became important when technology-based industry emerged in the 1980s and 1990s, and graduate education when the knowledge-based economy emerged in the late 1990s. The close link between education and economic development is demonstrated in Fig. 2.

In the 1990s, with the movement toward a global economy, the Korean government began to move its industrial focus towards high-tech industry. The Korean government began to emphasize research productivity in its resource allocation in order to stimulate knowledge production and knowledge-based innovation. For example, the government developed several programs to fund knowledge production including the Brain Korea 21 program of 1999, designed to build research universities in Korea (Shin 2009). The second

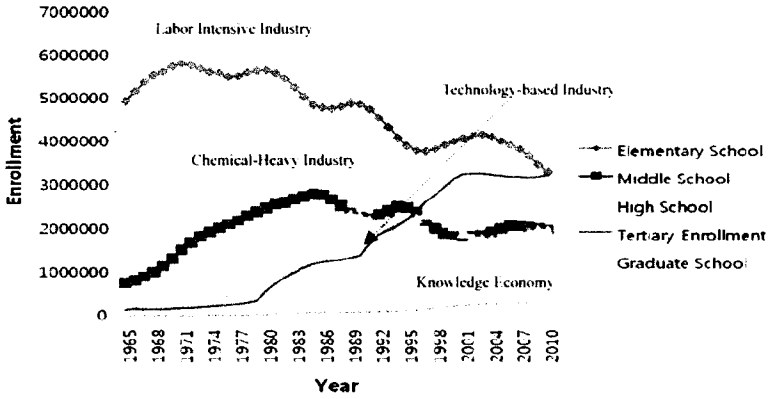

Fig. 2 Education and economic development in Korea. *Data Source*: *Annual education statistics* (Korean Education Development Institute, 1965–2010). *Notes*: Tertiary enrollment includes junior college, polytech, and university

round of the BK program was launched in 2006, and other follow up programs (e.g., World Class University, Humanity Korea, and Social Science Korea.) have been implemented. Although the Korean government has under-invested in higher education, it allocates the highest level of research and development (R&D) funding (3.5% of GDP) among OECD countries.

In summarizing the discussion, Korean higher education development is explained by the three components (Confucian tradition, western university ideas, and economic development). Of the three dimensions, this section paid attention to co-development of higher education and the economy because economic factors best explain why some countries have well developed higher education while others are not although they share the same Confucian tradition and model for a modern university.

Conclusion

The growth of Korean higher education is remarkable for its quality as well as quantity. The development has occurred incrementally from lower level education (elementary, secondary education) to graduate education. In the development, private higher education has functioned as the major provider of higher education service and its share of student enrollment is 80% is the highest among the OCED countries. Because of the large share of student enrollment in private universities, education costs are paid by students and the user pays model has been widely applied. This is quite different from elementary and secondary education in Korea where most of the costs are paid by the government. Also, this is different from much of European and North American higher education. Instead, the Korean government invests heavily in R&D to promote a knowledge-based economy.

The features of higher education development discussed in this paper are related to socio-cultural tradition (Confucian tradition), the modern university ideas, and economic development in Korea. The modern university ideas adopted in Korean are based on the German model which was established by the Japanese colonial government and drawing on the US university model after the World War II. However, the modern university ideas are

intertwined with socio-cultural factors and have been embedded in current Korean universities. The Confucian tradition has affected Korean higher education development. As well as the western ideas and the Confucian tradition, the growth of Korean higher education has relied upon the rapid growth of the Korean economy. Education development is well aligned with economic development in Korea thanks to government policy initiatives.

This framework can be applied in the analysis of higher education development in other countries. Higher education development cannot be solely explained by individual cultural, historical or economic factor. These three factors are interlinked and influence the development of higher education. The case of Korean higher education development has implications for other countries, especially the way in which the Korean government integrated education and economic development. However, this may not work in other contexts because the policy efforts of the Korean government are based on its unique cultural and historical context. The government strategy for user pays, for example, may not work elsewhere.

Academics are recommended to carefully review the historical and cultural contexts in their study of higher education development. This paper focused on the general features of the co-development of higher education and economy, but did not go into details of how the Korean government responded to the turbulent environment during last six decades (e.g., the oil shocks of the 1970s, the civil rights movement in the 1980s, globalization and the financial crisis in the 1990s etc.). Additional research is recommended on the policy dynamics that the Korean government developed in its unique cultural and historical context, and the turbulent environments it was faced with.

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