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Role of Higher Education in the Economic Growth: A Comparative Analysis of the Republic of South Korea and Republic of India

Uttam Gaulee
Morgan State University, Maryland, USA

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Uttam Gaulee
Morgan State University, Maryland, USA

Email: uttam.gaulee@morgan.edu

Abstract

This paper is an attempt to examine the relationship between higher education and economic growth by taking a country case of the Republic of Korea and comparing this with the Republic of India to show how political educational decisions impact economic growth. Even though both countries began as relatively underdeveloped economies at the time of independence in the 1940s, this literature study shows that these two countries took different trajectories in organizing their higher education systems. Korea's strategic and sustained investment in education (along with the private sector) has eventually helped the economy to soar. India's economy, on the other hand, is still held back from strategizing and channeling its resources for the development of higher education in general. India appears to have been fallen prey to a competency trap of the general presumption among many policy makers that secondary and higher education may not be as necessary for economic growth. As a result, the economy will continue to suffer until the political commitment shifts toward investing in higher education and working with the private sector of vast potentials.

Key words: higher education, India, Korea, comparative analysis, economic development

Introduction

In Asia, the Republic of Korea (Korea) and the Republic of India (India) represent a developed and a developing country respectively (World Bank, 2012). Both countries share similar educational and cultural values and yet, they have taken very different trajectories in the development of their higher education systems after their independence. When looked back, the

governance, the critical decisions about education at various junctures have defined their current economic growth. In the mid 1940s, India and Korea began as relatively underdeveloped economies (World Bank, 2012). Coincidentally, both countries celebrate their Independence Days on August 15 – Korea to commemorate its independence from the Japanese rule, and India from the British. Traditionally both countries highly focused on educational systems and traditions based on Asian cultures, philosophies, and religions to enhance quest for knowledge. Both countries were later influenced by the western model of higher education. For example, Korea was originally was influenced by the Japanese model of higher education, which in turn was based on the German model and later shaped by the American model after the World War II (Shin, 2012). On the other hand, India was influenced by the British educational practices through the British colonizers (Chitnis, 1993). In this paper, we argue that the different trajectories of these countries' higher education development have been closely tied with the economic development in the post-colonial era.

India has a population of 1.21 billion in the area of 3,166,285 square kilometers and Korea has a population of about 50 million in the area of about 100 thousand square kilometers. Whereas India is known for its diversity in terms of culture (Mishra, Devarakonda, & Kumar, 2015), Korea harbors a uniquely homogeneous population (Tudor, 2013). Both countries share politically democratic principles but they are different in the way they organize their democracies. Considered as the largest democracy on earth, India's lower house, the *Lok Sabha*, is modeled on the British House of Commons, but its federal system of government borrows from the experience of the United States, Canada and Australia (Singh, & Raj, 2009; NCERT, 2015). Korea, on the other hand, is a presidential republic consisting of seventeen administrative divisions (Hoffman, 1982). In contrast to the typically poor social fabric of India, Korea has emerged as a developed country with a high standard of living. Korea has achieved incredible growth over the past four decades and has emerged as a high-tech industrialized economy. The economy is export-driven, with production focusing on electronics, automobiles, ships, machinery, petrochemicals and robotics. Both countries are prominent in the global economy yet India has not become a member of Organization for Economic Cooperation and Development (The World Fact Book, 2015).

Both countries uphold modern democratic values and principles evidenced by these two countries' post-colonial history. After the formal separation with North Korea in 1953, South Korea has made a remarkable economic progress especially after the rise to power of Park Chung Hee in 1961 (Acemoglu, Johnson, & Robinson, 2005). Park created different economic development agencies such as the Economic Planning Board, Ministry of Trade and Industry, and the Ministry of Finance and shifted Korea's economic focus into export oriented industrialization. Fully civilian government has been around in Korea since 1993 when Young-sam Kim became South Korea's first civilian president leading the nation into a full democracy and a major economy. Current president Myung-bak Lee took office in February 2008 (The World Fact Book, 2015).

According to Das (2007), democracy was introduced in India after independence in 1947, and the rulers "adopted a Fabian [British] socialist economic path, and Indians did not turn to capitalism until 1991, although there was modest liberalization of the economy in the 1980s" (p. 2). Jawaharlal Nehru (1889-1964), the first Prime Minister of India, and his planners did not trust private entrepreneurs, and they made the state the entrepreneur, and "not surprisingly, they failed to create an industrial revolution" (Das, 2007, p. 2). Instead, India experienced an agricultural revolution in the early 1970s.

Mired by the nationalist thinking, India took too long before beginning to realize the benefits of globalization by denying itself a share in world trade and the prosperity that trade brought in the post-War era. With unproductive investments and over-regulated market, the Indian economy couldn't attract foreign capital and disallowed the benefits of technology and world class competition. Not partaking in the global market not only held economy back, but it also prevented educating its children. (Das, 2007)

While Korea let the private sector grow freely, India's rigid controls on the private sector were detrimental. Entrepreneurs were discouraged to begin new industries due to the Industrial Licensing Act of 1951, which introduced an ineffective bureaucratically that virtually hamstrung the market and foster corruption at the same time (Das, 2007).

While Korea was strategically planning and investigating in education and allowing private sector to function, India's focus was on controlling private sector which fostered monopolies and resulted in the proliferation of uneconomic-size plants in remote, uncompetitive locations, employing second-rate technology. Economy could not take off from the hands of Bureaucrats who made the decisions on the choice of technology, the size and location of plants without regards to business perspective.

Later Indira Gandhi (1917-1984), daughter of Jawaharlal Nehru, became the 4th Prime Minister in 1977 for 11 years, and later the 7th Prime Minister in 1980 for 5 years (Frank, 2010; Gupte, 2012). She followed her father's footprints and introduced a "dark period for the Indian economy" with more controls as she nationalized banks, discouraged foreign investment, and placed more hurdles before domestic enterprise (Das, 2007).

As Narasimha Rao (1921-2004) became the 10th Prime Minister in July 1991, he announced sweeping reforms: "It opened the economy to foreign investment and trade; it dismantled import controls, lowered customs duties, devalued the currency and made the rupee convertible on the trade account; it virtually abolished licensing controls on private investment, dropped tax rates and broke public sector monopolies" (Das, 2007, p. 3). As Delong (2003) pointed out India became one of the fastest growing major economies in the world in the late 1990s.

A fundamental Indian ideology that did not accord a high place to making money had a long term impact in country's economy. Traditionally, the merchant or *bania* is placed third in the four-caste hierarchy, behind the brahmin and the kshatriya, and only a step ahead of the laboring *shudra*. With some outside influence, making money became gradually respectable only when the sons of *Brahmins* and *Kshatriyas* began to get MBAs and took on entrepreneurship. As a result, India is in the midst of a social revolution rivalled, perhaps, only by the ascent of Japan's merchant class during the 1968 Meiji Restoration. (Das, 2007).

Speaking English is considered a status symbol among young Indians in the new middle class. This craze for speaking English with Hindi intonation has resulted in a unique dialect: Hinglish. The ubiquitous use of hybrid of Hindi and English is a new normal "because Indians are more relaxed and confident as a people. Their minds have become decolonized" (Das, 2002, p. 19). As the world changed from an industrial to the information economy, India found a new economic niche evidenced by a boom in software development and business process outsourcing, especially for the Western countries. Gradually, a new self-belief is emerging among urban youth that does not need approval from others, especially from the West. An "exuberant nonchalance" is evidenced in the expression of art, music, movies, and fashion (Rao, 2007). Even though India is still struggling to overcome poverty and corruption, India stands tremendous potentials of economic growth.

Korean Higher Education

History and Institutional Background?. Roots of the Korean higher education system were laid towards the end of Yi Dyansty (1897-1910). The important change was a shift from Confucian towards European model. The Confucian model focused on Korean society, social relations, and other fundamental aspects of communities (Koh, 1996). The arrival of the Western missionaries, who opened missionary schools in "the hermit kingdom" (western view of Korea at that time), brought about the first stream of change. In 1886, an American missionary Mrs. Mary R. Scranton started the first modern private higher education institution in Korea later known as Ewha Woman's University (Ewha Woman's University, 2012). The second stream of change came with the establishment of technical and professional schools as per the needs of the modern society. Schools opened serving in the fields of medicine, telegraphy, industry, mining, and agriculture. The third stream of change was the establishment of *Posung Jummoon Hakkyo* (Posung Professional School), a modern, private higher learning institution by a Korean national (Young-ik Lee). This is an important private institution serving the present day Korea, known as the Korea University (Korea University, 2016). A Number of private institutions grew tremendously during this period. There were 2,250 registered and thousands others not registered private institutions in Korea before the beginning of the Japanese Rule (Oh, 1964, p. 225 as cited in Kim, 2000?). In Korea today there are more than 376 official higher education institutions that support 3.7million students and 60,000 academic staff. This includes 179 private four-year universities, 43 national universities, polytechnics, cyber-universities and other types. Two-year and three-year Junior colleges number 149, with a student population of 770,000 and 12,500 faculty (Parry & Lee, 2011).

The Hidden 'international' Elements within Korean Higher Education

Even though the Korean HE sector remains historically Korean in nature, it has been evolving with an increasing international influence. More than one third of Korean faculty and scholars have a doctoral degree from foreign universities. With about 5000 foreign academics with PhDs employed in the HE sector, Korea also sends Korean scholars abroad to obtain foreign qualifications, which has become an important element of academic career.

Foreign exposure, particularly to the Western academic world, and learning English language is valued. So much so, Korea also has a tradition of high school students going abroad for a semester, summer program or longer academic experiences to improve their English-language abilities. English language is introduced early on in the elementary schools beginning from third grades (Parry & Lee, 2011)

Another aspect of Korean internationalization is seen in its attempt to attract international students. However, results of these efforts have even paltry compared to the number of students who go abroad for study. The exodus of Korean student to English speaking countries continues to rise. In 2010, Korea sent more than 250,000 abroad while attracting less than 85,000 international. Korea also continues to experience brain drain as half of the student going abroad for study never return. Moreover, Korea has also failed to retain the international students that pursue higher education in Korea. Some restrictions applied to foreign graduates seeking employment in Korea detrimental toward balancing the loss of brain drain (Parry & Lee, 2011)

Current Problems in the HE Sector

Parry and Lee (2011) project that economic and demographic problems will impact on the HE sector in the next decade. As the higher education sector expands, it is confronting a declining market and low government spending**.** Demographically, Korea is experiencing a low fertility rate, which also is a reflection of financial reality, cultural expectations and lack of gender equity. The fertility rate dropped from 4.5 children per family in the 1970s to 1.2 in 2010. Korean people's commitment to education is also evident in the proportion of higher education expenses they pay. Education expenses make up 48% of the average family income while a child is in university. This compensates the low Government spending on higher education.

The HE Sector and the Government

Government has introduced some reform projects to make the graduates globally competitive. Government aims to develop some selected institutions as world class institutions to lead the country into the knowledge economy. Hence many HE institutions are not happy because they do not receive Government funding (Parry & Lee, 2011).

New accountability measures are in place and underperforming institutions are being overhauled. According to the Korean Council for University Education, every two years all 4-year member universities are now required to complete a self-assessment for compliance, a process designed to implement a quality framework conforming to international standards. Some of these standards include autonomy, professional development for faculty, and consistent accreditation policies and criteria.

Songdo and international branch campuses

Korea plans to bring foreign branch campuses and tens of thousands of international students to the Incheon Free Economic Zone near the Incheon Airport. Other sites are planned at tertiary and secondary school levels.

A number of American campuses are coming to Korea including State University of New York (SUNY), George Mason University, and Ghent University. Yonsei University from Seoul recently opened a 'Global Campus' in Songdo. The idea is for students to obtain a 'globalised education' without having to go abroad. However, Government doesn't seem to be taking any significant steps toward relieving the family burden in higher education expenses or to integrate international students to settle in Korea after graduation (Parry & Lee, 2011).

Governance. Korea has always remained subservient to the legacy of Japanese colonial control. Noteworthy difference, however, is that Indian system works by the acts passed by the parliament but most of the higher education policies in Korea, however, have been manifested in presidential decrees (Lee, 2003). Although an attempt was made by the US military government in 1945 to set up an autonomous higher education institution in Korea under a board of trustees (as in the US) by establishing Seoul National University, the Korean leaders never appointed the independent board despite frequent recommendations to do so (Shin, 2012). The Korean Constitution envisions autonomy of the university, and that most of the provisions of laws are favorable to provide autonomy (Kim , 2000). Ministry of Education controls the higher education system of Korea whereas the University Grants Commission (UGC) established in 1956 regulates Indian higher education system (UGC, 2012).

The modern higher education development of India and Korea can be explained in terms Western university ideas, religious tradition, and economic development (Shin, 2012). Western university ideas are manifested in the Korean and Indian higher education. For example, Kyungsung Imperial University (KIU) adopted the German model through the Tokyo Imperial

University which itself was modeled on the German universities (Kim 2007; Lee 1989). KIU was reorganized as Seoul National University in 1946 when the American Military was ruling. A hybrid model of US and German influence can be seen in the universities in both Korea and India. Influenced by the US model, universities and Korea and India have adopted the system of department system, course-based credit hour, charging students for tuition, and relying on the private sector to provide a large proportion of higher education. Similarly, the influence of German is evident in certain universities in both countries such as the provision of a powerful chair system, emphasis on seniority/ rigid hierarchy, policy makers considering all universities as equals, seminar course, and the government policy not acknowledging institutional diversity in its administration. There are there any examples of western based universities in India.

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 (World Bank, 2012). Private institutions in Korea generate most of their operational budget (about 50–60%) from student tuition (Shin, 2012).

While well off families in India send their children to school without question, India's case is different when it comes to paying for education. The difference that will explain this scenario is that Korea has the lowest tax rate (=26%) for an OECD country, average for which is 35%. Apart from the tax rate, another great advantage to the Korean people is that Korea has the lowest unemployment rate= 4% (2009), lowest among OECD countries. Hence the good job prospect and low tax gives an additional incentive for families to invest in higher education. However, Indian citizens do not have the same privilege that Korean people do have for higher education.

Although both of these countries share higher education systems based on similar cultural heritage and almost equally influenced by the Western models, stark differences exist between them, which can be explained by the link between economic development and higher education. Figure 1 shows the relationship between tertiary education enrollment rate percentage and GDP per capita of selected countries. Asian countries like India and Korea differ in their higher education enrollment rate although they share the similar academic culture and Western models (Hayhoe, 1995).

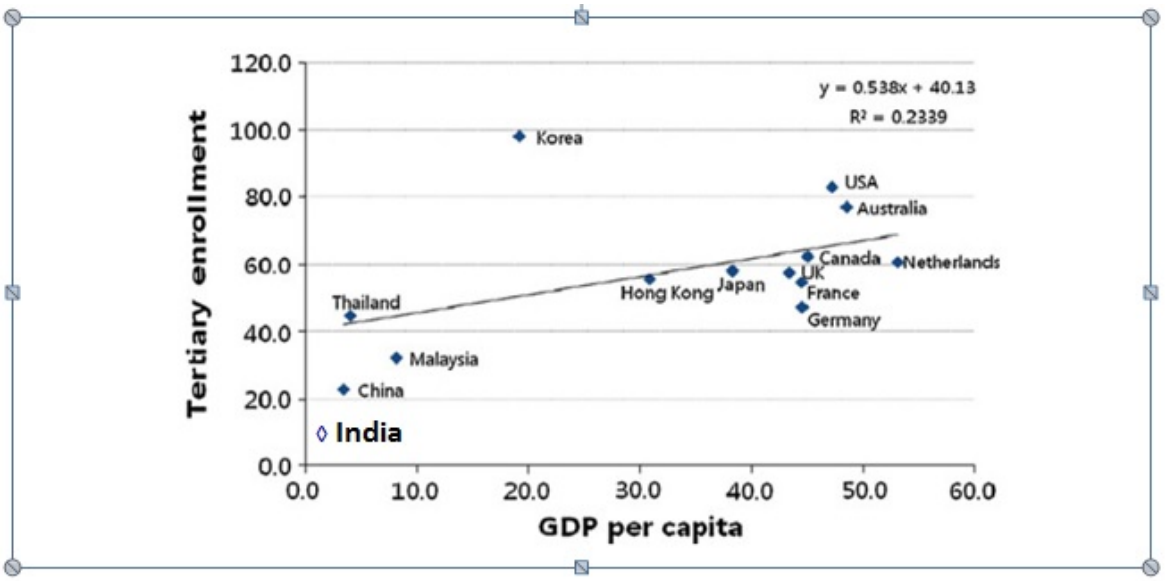

Fig. 1 (adapted from Shin, 2011) Tertiary education enrollment rate (%) and GDP. *Notes*: GDP is thousand US$ in 2008

There is a strong positive correlation between countries' GDP and tertiary enrollment (Shin, 2011). However, both Korea and India are in the opposite direction. Whereas Korea surpasses the enrollment rate in relation to GDP, India struggles in both areas, further attesting the argument that there is a symbiotic relationship between the development of higher education system and the economic growth of a country.

When the Jung-Hee Park government took power in 1961 in Korea, it established a long-term plan with economic development as its primary focus (Tudor, 2013). 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 (Tudor, 2013). 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 Shin, 2012).

The symbiotic development of higher education and national economy development in Korea has been also supported by studies on the return on investment (e.g. Choi, 1997). Shin (2012) has succinctly demonstrated a perfect scenario of Korea, where the education and economy evolve hand in hand. Figure 2, as borrowed from Shin's study, shows that elementary education provided critical manpower for labor intensive 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 (Shin, 2012).

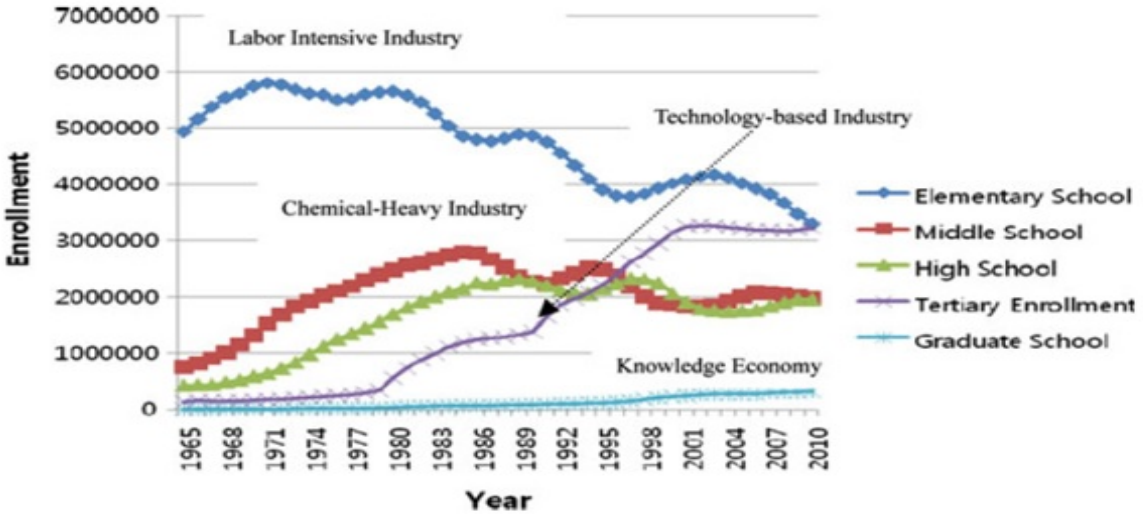

Figure 2. Education and economic development in Korea (adapted from Shin, 2012)

The Korean government had demonstrated the necessary dynamism to bring about timely changes in education. Along with the .com boom in the 1990s, the Korean government again rightly identified the inflection point to shifted its focus from the technology-based industry toward knowledge-based high-tech industry. The Korean government generously spent on research and innovation evidenced by program such as Brain Korea 21 program of 1999, designed to build research universities in Korea (Shin 2012)). The second 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 (Shin, 2012). Korean government tapped into the unique cultural advantage of parental willingness to pay for higher education that allowed the government to afford to "under-invested" in higher education without hurting access and yet be able to allocates the highest level of research funding (3.5% of GDP) among OECD countries. This is a strategic move of Korea to make fray into the global knowledge economy while leaving the brunt of financing higher education to the private sector, which is mostly controlled by providing performance incentives (for both India and Korea)

India Higher Education

Institutional Backgrounds

Before Independence in 1947, India had only 20 universities and 591 colleges (Sangwan & Sangwan, 2003).These institutions were modeled after British universities but were designed to be substandard as they were largely expected to provide the limited level of education necessary for the Indians to assist the British colonial administration or commerce by providing clerical support Chitnis (1993). Independence provided an impetus for the Indian higher education system, which currently serves 144 million college aged students (World Bank, 2012). As a result of the impressive expansion in the higher education in the recent decades, the number of institutions is rapidly growing. With 46,430 institutions of higher education by the end of 11th Plan (2008-2012), India now has the largest higher education system in the world. The system includes the 645 degree awarding institutions, 33,023 colleges affiliated to 174 universities, and over 12,748 diploma granting institutions (Planning Commission, 2013). Some modern Indian

institutions such as the Indian Institutes of Technology (IITs), National Institute of Technology (NITs), Indian Institutes of Information Technology (IIITs), Indian Institutes of Management (IIMs), University of Mumbai and Jawaharlal Nehru University have been globally acclaimed for their standard of education (World Bank, 2012). India now possesses a well-developed higher education system that offers quality education and training (Choudaha, 2012).

Higher education has been under high government control in both countries for long with their colonial legacy. India higher education system has been under strict control of bureaucracy rooted in the legacy of British.

Indian Higher Education - Access

Access has remained the most challenging issue in Indian higher education. Gross enrollment ratio (GER) is an indicator of higher education access in terms of the total enrolment in higher education as a percentage of the population in the eligible age. India's access scenario of higher education enrollment shows that there is a great deal to do. By the end of 10th Plan in 2006-07, only about a tenth of the 18-23 kids went to college (Government of India, 2012). The 11th five year plan (2008-2012) aimed to increase the ratio to one fifth by the end of 11th plan. However, India could only reach 15.2% (including distant education) meaning the penetration of roughly one seventh of college eligible having access to some kind of college education (Government of India, 2012). India's GER of 15.2 percent is in stark contrast with Korea's 95 per cent. For reference, the United States of America has 82 per cent and China has 23 percent, which is close to world average (UNESCO, 2012). Indicating the challenge ahead, an Indian scholar argues India needs to increase GER to 30%, and toward that direction, India would need another 800 to one thousand universities and over 40,000 colleges in the next 10 years (Gupta and Gupta, 2012). This recent increase is commendable nonetheless. According to a report by the Planning Commission, after crossing the threshold of 15 per cent GER, India's higher education has moved from an "elite" to a "mass" higher education system (Government of India, 2012, p. 93).

Though the contribution of secondary and higher education to development is quite significant, India has not paid adequate attention to it. In fact, there has been a strong tendency to neglect secondary and higher education and to focus, rather exclusively on elementary, more particularly primary education (Tilak, 2004). Among the existing enrolment, most of the higher education is concentrated in the bachelor's level. As a result, despite the vast expansion in the Indian higher education, graduate level of education and leading to doctoral degrees dramatically tapers off and almost shrinks to a small number.

Research level education would help integrate India with the knowledge economy. Explaining India's response to globalization, Selvan (2010) observes: "[T]he relationship between globalization and higher education is fragile revealing a gap between what the country has achieved on globalization and what it has achieved on higher education. Hence, the government should ensure right allocation and appropriateness of budget on higher education" (p. 99).

Internationalization. Internationalization is argued to contribute to the knowledge-based economy. While both Korea and India have opened up themselves for internationalization of higher education, Korea is more aggressively pursuing this goal. Korea has many dual degree programs and joint degree programs with American and British universities. A 2007 government survey found that 29 Korean universities had dual degree programs, in partnership with 34 overseas schools in 14 countries, which amounts to a more than 100% net increase over the

corresponding numbers from 2004 (Choi & Kim, 2007, as cited in Byun & Kim, 2011). There are also a number of joint degree programs that combine traditional degrees from two countries. Today, many Korean universities are offering joint degree programs with foreign HEIs, most of which were located in North America (Byun & Kim, 2011).

Lack of foreign language proficiency in general and the knowledge of international conditions in particular creates a serious limitation in employability, even for engineers and technical workers who be competent otherwise. Certain college and university programs have therefore created language requirements, not only in English but also in Asian languages like Chinese or Japanese, the languages of competitors, the languages of neighbors. Second, Korea now faces, and will surely continue to face, a series of national questions about its role in the world, in economic, political, and cultural senses. Currently, extremely small numbers of foreign students enroll in Korean universities. In 2003 only 0.2% of all Korean students were from other countries, the smallest proportion in the OECD, and well below even the quite small 2.2% in Japan, as well as well below the OECD average of 6.4%. Larger numbers of students go abroad (and especially to the U.S.) for undergraduate or post-graduate education, partly because some foreign degrees have substantial status. A different issue involves the attempt of foreign universities to provide programs within Korea. Currently, MOE requires that the number of foreign directors of a foreign university be no more than two thirds of the board. This restriction, alongside other requirements that are placed on domestic and foreign private providers alike, has meant that; no foreign program had been established in Korea as of 2004, and only a few online programs.

A substantial number of intellectuals come to the United States under the auspicious of Fulbright Scholarship Programs, East-West Center Fellowship Programs, Minnesota-Seoul National University Exchange Scholars Program, the Ford Foundation, the U.S. International Cooperation Administration, and so on (Kim & Lee, 2003). This strong tie with the United States might have given an advantage for Korea to make a tremendous leap economically. Homogeneity of the society, compliant people, and strong government with forward looking policy could have been other important factors contributing to the development of Korean economy.

Can India Catch Up?

India has many potential sectors which can be developed to catch up. In fact, India is catching up but there are several domestic issues such as corruption and cultural barriers that hold India back. Despite these barriers, India's strength lies in its enthusiastic young population and technical expertise. Federation of Indian Chambers of Commerce and Industry (FICCI) has put forward a plan to work with the Government of India towards expanding higher education and thereby boosting the economy. Private sector has not only identified the issues, but also put forward plan. FICCI's Vision 2030 is a well thought out document that invited the Government of India to let the private sector play into higher education. Forward of the detailed documents says "given inadequate autonomy to our Universities," excellence in education has not been achieved in spite of increasing capacity (Ernst & Young, 2013, p. 2).

Untapped Potential. Looking at the number of vehicle exported in 2006, South Korea is dominant with about 2.6 million cars exported compared to China and India with only about 220,000 to 280,000 (Sardy & Fetscherin, 2009). Although this looks like an abysmal state of

affairs, the same statistics shows an immense potential for India to grow economically by makings its foray into global car industry. Table 1 shows that Korea's current manufacturing wage is reaching saturation with highly developed countries whereas India's manufacturing cost is still very low. In the meantime, to tap into this potential, government needs to invest in the research and development (R&D) to create momentum towards the industry. India's R&D expenditure of 0.8% of GDP is too low to spur the economic growth pattern.

Table 1

Descriptive Data for Factor Conditions

Factor Condition	**India**	**Korea**
Average manufacturing wage/year (USD)	429	33,177
R&D expenditures (% of GDP) (2000-2003)	0.8%	2.60%
Adult literacy rate (% ages 15 and older) (2004)	61.00%	98.00%

Adapted from Sardy and Fetscherin (2009, p. 8)

Newly industrialized countries have challenged the traditional international division of labor in a variety of sectors by successfully exporting steel, petrochemicals, automobiles, advanced consumer electronics and even passenger planes. Moving into more design intensive activities would qualitatively extend this challenge, but the NICs have had a difficult time entering sectors in which competitive advantage depends primarily on design and marketing. The computer industry epitomizes the difficulties. Rates of innovation are so high in this industry that extraordinary levels of investment in research and development (R&D) are required of established participants in the industry, just to hold their places (Evans & Tigre, 1989).

India Vision 2020. The document "India Vision 2020" is predicated on the presumption that "human resources are the most important determinant of overall development" and states that a successful education policy forms the "bedrock of all fields of national development - political, economic, technical, scientific, social and environmental" (Government of India, 2012 pp. 5-6). The Approach Paper to the Eleventh Five-Year Plan states that the higher education sector is "finding it difficult to get quality faculty given the enormous increase in private sector opportunities" and that there is a "serious shortage of qualified research personnel in educational institutions" and, further, emphasizes the need to "create an environment that will attract top class faculty to our universities" (Government of India 2012, pp 62-63).

Vision 2030. The private sector of India looks has recently put forward a comprehensive report "Higher Education in India: Vision 2030," which is a forward looking document. Looking at the changing demographic of the nation, the opening statement of the report projects that India will be amongst the youngest nations in the world in the coming decade. According to the report, 140 million people will be in the college-going age group. The report further looks into the future of Indian higher education:

> By 2030, the already existing challenges for Indian higher education – access, equity and quality – will only be greatly exacerbated unless we significantly transform our higher education model. Needless to say, 2030 calls for a new vision and a new aspiration, and this is the genesis of the "Higher Education in India: Vision 2030" report – to articulate

an ambitious vision for higher education reform and lay out a roadmap to achieving it. (Ernst & Young, 2013, p. 3).

Aspiration. Budget speech of 2006-2007 has a proposal to recognize 6109 institutions the University Grants Commission, and to invest 13.93 million students (2006-07). The system is now more mass-based and democratized with one third to 40% of enrolments coming from lower socio-economic strata (World Bank, 2012). There is acknowledgement of GDP in education 3.72, (less than 1 per cent dedicated to higher education). Public expenditure on higher education including technical education has varied between 0.45 and 0.6 of the GDP (World Bank, 2012). There are concerns over quality: Not more than 15% of graduates from general education and 25-30% of Technical Education are fit for employment. Grading of institutions (31% A, 52% B, and 16% C) has been in place for several years to regulate the institutions. Government is inviting the private sector to invest in higher education and permission to cost recovery by student tuition is allowed. In fact, India has been encouraging private investment in professional education since 1980s (World Bank, 2012). Foreign universities are allowed to open campuses. One of the official documents mentions "permitting private sector to establish a world class institution" permitting private sector to establish a world class institution in Management (ISB at Hyderabad) with linkages with world class institutions.

Realization of State's Role. India needs to realize the states' role in fostering economy as well as higher education in a symbiotic manner. The strong role of the Korean state in trying to enhance local technological capacities manifests itself in a variety of forms, ranging from strong support for higher education in general to the construction of Daeduk science town and its panoply of associated research institutes and to the provision of a variety of fiscal incentives for individual firms (Khan, 1998, p. 119). Khan's study shows how Korea has developed over the last twenty years in the area of electronics because of its target-oriented policy towards export, whereas India could not develop its electronics industry due to overemphasis on indigenization, with the result it could not catch up with advances abroad in electronics technology and ended up with a weak electronic component industry (Khan, 1998).

World Class India: High Aim. The President of India Shri Pranab Mukherjee's this saying is championed on the website of the Ministry of Human Resource Development: Education is the true alchemy that can bring India its next golden age. Our motto is unambiguous: All for knowledge, and knowledge for all.

Setting up of a Knowledge Commission (2005), with an aim of "Transforming India into a Knowledge Superpower (2003)" signals an effort to pursue the global knowledge-based economy. Finance Minister's allotment of an additional INR1000 million each to universities of Mumbai, Kolkata, Chennai and the Punjab Agricultural University to make them world class (Budget Speech 2006); Finance Minister's allotment of an additional INR1000million to Indian Institute of Science, Bangalore to become a world level university (Budget speech 2005); Selecting universities and colleges with "Potential for Excellence" started by UGC during Xth Plan to identify at least 161 colleges during the Plan period.. So far 9 universities and 97 colleges have been identified and given special grants (World Bank, 2012).

According to latest available government statistics, higher education gross enrollment ratio in India has risen to 21.1% in 2013 (Educational Statistics, 2014). In a recent *Time of India* article, the Ministry of Human Resource and Development mentioned that the number of students enrolling for higher education "appears to have shot up dramatically." Citing a recent survey conducted by the Ministry, the gross enrolment ratio (GER) for higher education has shot

up from 12.4 to 20.2 in the last four years. Notable is the fact that India's eleventh five-year plan had an aim to increase GER to 20 by 2011. Although the HRD Minister Kapil Sibal rolled out this announcement using dubious language, this is an encouraging progress towards access. Minister Sibal was addressing a conference titled, EducationNext, organized by *Times of India*. The main focus of the conference, attended by academics and education experts, was "India-The Education Superpower of the Future"(Times of India, 2012 August 21). India's aspiration of becoming an educational destination is not different from that of Korea. Indian Embassy's website in Korea invites Korean students to select India as their educational destination. The website mentions, "For centuries, India has been the global centre for Education. The education system in India is well established, organized and covers a wide spectrum of disciplines."

But, is India serious? Department of Higher Education is responsible for the overall development of the basic infrastructure of higher education sector. India has been working to develop "world class" universities, colleges and other Institutions (Department of Higher Education, 2012). However, there is little follow up in the vision, mission and objectives. Three out of the four mission statements laid out by the Department of Higher Education emphasize the equity and access. There is no mention of the world excellence. "Stretching the frontiers of knowledge" is once mentioned which suggests that they are heavily obsessed about numbers rather than quality.

Conclusion

India and Korea exhibit a great example of the symbiotic relationship between the higher education and economic growth. Apart from literacy and elementary education, it is necessary that attention is paid to the development of sound and comprehensive education policies. Though the contribution of secondary and higher education to development is quite significant, India, like many other developing countries has not paid adequate attention to it. In fact, there has been a strong tendency to neglect secondary and higher education and to focus, rather exclusively on elementary, more particularly primary education (Tilak, 2004).

As a result, primary education is nearly universal in India, but the enrolment ratios in secondary and higher education are very small. Public policy has to clearly recognize not only the basic foundation that primary education provides for development, but also the critical importance of secondary and higher education in development, in poverty reduction, human development and economic growth. Coherent long-term policies for the development of education, including secondary and higher education, for development of the economy are critically needed.

Tap into the potential of private sector. India needs tremendous expansion of access to higher education. It lessens the burden on the government but it works as it has worked in Korea for the expansion of higher education. With a larger share taken up by the private institutions, Korea's enrollment is nearing 100% whereas Indian enrollment rate is trailing at 17.9% by the end of 2012 (Cash, 2015). Indian government seems to allocate budget strategically to focus on research, and to provide incentives to institutions in producing the human resource that aligns with the national goal. Government provided statistics show that India is in fact one of the top countries investing public expenditure per tertiary student as a percentage of GDP per capita and yet among the lowest in terms of gross enrollment rate . On the contrary, Korea is one of the Asian countries spending the lowest of such proportion per student, and yet has the top enrolment ratios in tertiary education. This was only possible because of the private sectors contribution to higher education. As India enters the knowledge economy with an ambitious goal

for the Twelfth and Thirteenth Five-year Plans to reach 32% GER by 2022, particularly at a time when higher education is being perceived worldwide as private good rather than public good (Johnston & Marcucci, 2010), the biggest democracy in the world may not be able to educate its youth without tremendously increasing investment in higher education. Moreover, even though private sector's role in education is culturally frowned upon, the Government of India will have to loosen the bureaucratic control of higher education and embrace the private sector as a more integral partner in the days to come.

References

Delong, J. B. (2003). India since Independence: An analytic growth narrative. In D. Rodrik (ed), *In search of prosperity: Analytic narratives on economic growth* (184-203). New Jersey, NJ: Princeton University Press.

Frank, K. (2010). *Indira: the life of Indira Nehru Gandhi*. HarperCollins.

Gupte, P. (2012). *Mother India: A Political Biography of Indira Gandhi*. Penguin Books.

Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Institutions as a fundamental cause of long-run growth. Handbook of economic growth, 1, 385-472.

Altbach, P.G., & Balán, J. (Ed.) (2007). Transforming research universities in Asian and Latin America: World class worldwide. Sterling, VA: Stylus Publishers, LLC.

Byun, K. & Kim, M. (2011). Shifting patterns of the government's policies for the internationalization of Korean higher education. Journal of Studies in International Education.15(5) 467–486.

Cash, T.A., 2015. Economics of higher education in India, An analysis. *International Journal of Multidisciplinary Research and Review* 1 (2), 45-49.

Chitnis, S. (1993). Gearing a colonial system of education to take independent India towards development. Higher Education, 26(1), 21-41.

Choi, K. (1997). The contribution of investment in education to economic growth in Korea. *The Journal of Economics and Finance of Education (in Korean), 6*(1), 229–257.

Choudaha, R. (2013). Latest statistics on Indian Higher Education. Retreived from http://www.dreducation.com/2012/06/latest-statistics-indian-higher.html

Department of Higher Education (2012). Ministry of Human Resource and Development, Government of India. Web: http://mhrd.gov.in/Overview_Higher

Das, G. (2002). *The elephant paradigm: India wrestles with change*. Penguin Books India.

Evan, P.B. & Tigre, P. B. (1989). Going beyond clones in Brazil and Korea: A comparative analysis of NIC strategies in the computer industry. World Development,17(11), 1751-1768.

Educational statistics at a glance. (2014). Government of India. Retrieved from http://mhrd.gov.in/sites/upload_files/mhrd/files/statistics/EAG2014.pdf

Ernst & Young, Federation of Indian Chambers of Commerce and Industry (FICCI), 2013. *Higher Education in India: Vision 2030*. FICCI Higher Education Summit 2013. Ernst & Young and FICCI, Kolkata

Ewha Woman's University (2012). Website: http://www.ewha.ac.kr/english/

Gupta, D & Gupta, N. (2012). Higher education in India: structure, statistics and challenges. Journal of Education and Practice. 3(2). ISSN 2222-1735 (Paper) ISSN 2222-288X. Web from www.iiste.org

Government of India (2012). India Vision 2020. Planning Commission, Government of India. New Delhi.
Government of India (2006). Towards faster and more inclusive growth: An approach to the 11th five-year plan. Planning Commission, Government of India. New Delhi.
Hayhoe, R. (1995). An Asian multiversity? Comparative reflections on the transition to mass higher education in East Asia. *Comparative Education Review*, 39(3), 299-321.
Hoffman, V. J. (1982). Development of Modern Police Agencies in the Republic of Korea and Japan: A Paradox, The. *Police Studies.: The Int'l Review of Police Dev*., 5, 3.
Johnstone, D. B., & Marcucci, P.N. (2010). *Financing higher education worldwide: Who pays? Who should pay?* Baltimore, MD: Johns Hopkins University Press.
Joo, C. (2000). The entrance examination system. In Weidman & Park (eds.) Higher Education in Korea: *Tradition and adaptation*. Falmer Press. 89-107. New York, NY.
KCUE (2012). Chairman's Welcome. From the website of Korean Council for University Education. http://english.kcue.or.kr/board/bbs/board.php?bo_table=About_01_01
Khan, M. U. (1998). A comparison of the electronics industry of India and Korea. *Techno vision* 18 (2), 111-123.
Koh, B-i. (1996). Confucianism in contemporary Korea. In Tu Wei-ming, *Confucian traditions in East Asian modernity* (pp. 193-195). Boston, MA: Harvard University Press.
Kim, S.-W., & Lee, J.-H. (2003, Spring/Summer). Brain drain and human resource development in the context of U.S.-Korea Alliance. *International Journal of Korean Studies*, 99-114.
Kim, K-S. & Nam, S. (2007). The making of a world-class university at the periphery: Seoul National University. In Altbach, P. & Balan, J. (eds*.) Transforming research universities in Asia and Latin America: World Class Worldwide*. John Hopkins University Press. Baltimore, MD.
NCERT (2015). "The Gist of NCERT - INDIAN POLITY:." New Delhi: Kalinger Publications. Accesed July 11, 2016 from
Das, G. (2007). India: How a rich nation became poor and will be rich again. Retrieved from http://gurcharandas.org/rich-nation-poor
Kehoe, M. (1949 February). Higher education in Korea. The Far Eastern Quarterly. 8 (2), 184-186. Association for Asian Studies.
Kim, J. (2000). Historical development. In Weidman &Park (eds.) *Higher Education in Korea: Tradition and adaptation*. Falmer Press. New York, NY.
Kim, S.-W., & Lee, J.-H. (2003, Spring/Summer). Brain drain and human resource development in the context of U.S.-Korea Alliance. *International Journal of Korean Studies*, 99-114.
Korea University (2012). Website: http://www.korea.edu/
Lee, Y. (2003). Politics and theories in the history of curricular reform in South Korea. *International handbook of curriculum research* (2003): 541-552.
McNeill, D. (2011 November 27). After Decades of Building Colleges, South Korea Faces a Lack of Students. *Chronicle of higher education*.
Mishra, S., Devarakonda, B., & Kumar, B. (2015). Transition from cultural diversity to multiculturalism: perspectives from offshore industry in India. AI & SOCIETY, 30(2), 283-289.
OECD (2009), "Suicides", in Society at a Glance 2009: OECD Social Indicators, OECD Publishing. http://dx.doi.org/10.1787/soc_glance-2008-33-en
Parry, Z., & Lee, S. H. (2011). The higher education sector in Korea: What you see is not always what you get. *The Observatory on Borderless Higher Education*, 10.

Planning Commission Government of India. (2013). Twelfth Five Year Plan (2012-2017): Social Sectors. Retrieved from: http://planningcommission.gov.in/plans/planrel/12thplan/pdf/12fyp_vol3.pdf

Sangwan, S., & Sangwan, R. S. (2003). Rural--urban Divide: Changing Spatial Pattern of Social Variables. New Delhi, India: Concept Publishing Company.

Sardy, M., & Fetscherin, M. (2009). A double diamond comparison of the automotive industry of china, india, and south korea. Competition Forum, 7(1), 6-16. Retrieved from http://search.proquest.com/docview/214845955?accountid=10920.

Selvam, J. (2010). Response of higher education to globalization: Empirical evidences from India. Journal of Social and Economic Development 1(2), 154+. Academic OneFile. Web. 9 Dec. 2012.

Shin, J. C. (2012). Higher education development in Korea: Western university ideas, Confucian tradition, and economic development. Higher Education, 64(1), 59-72.

The World Factbook (2015). Washington, DC: Central Intelligence Agency, 2009. https://www.cia.gov/library/publications/the-world-factbook/index.html.

Singh, M. P., & Raj, S. R. (2009). *The Indian Political System*. Pearson Education India.

Tilak, J.B.G. (2004). Absence of policy and perspective in higher education. Economic and Political Weekly, 39 (21), 2159–2164.

Times of India (2012 August 21). 65% jump in higher education enrolment in 4 years: Kapil Sibal. Times of India.

Tudor, D. (2013). Korea: The Impossible Country. Tuttle Publishing.

UNESCO (2012). Global education digest: Comparing education statistics across the world. Unesco Institue for Statistics. http://www.uis.unesco.org/Education/GED%20Documents%20C/ged-2009-final-4-err-en.pdf

World Bank (2012). India: Country Summary of Higher Education. From: http://siteresources.worldbank.org/EDUCATION/Resources/278200-1121703274255/1439264-1193249163062/India_CountrySummary.pdf

World Bank (2012). Data Map. http://tinyurl.com/jogar9z