



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

Uttam Gaulee

Morgan State University, Maryland, USA

Email: uttam.gaulee@morgan.edu

Abstract

We may examine the relationship between higher education and economic growth by comparing the Republic of Korea to the Republic of India. How do political educational decisions impact economic growth? Although both countries began with relatively underdeveloped economies at the time of their independence in the late 1940s, 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 helped the economy to soar. India, on the other hand, has neither strategized nor channeled its resources for the development of higher education. India appears to have been fallen prey to a competency trap, the presumption of many policy makers that secondary and higher education may not be central for economic growth. Her economy will continue to suffer until political commitment shifts and the country massively invests in higher education, thus unlocking vast potential.

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

In Asia, the Republic of Korea (Korea) is a developed country and the Republic of India (India) is a developing country (World Bank, 2012). The two countries share educational and cultural values; yet, their higher education systems took very different trajectories after their independence. In retrospect, critical decisions taken on 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 Japan, and India from the British. Traditionally both countries possessed educational systems and traditions based on Asian cultures, philosophies, and religions to enhance the quest for knowledge. Both countries were also influenced by Western model of higher education. Korea was guided by the

Japanese model of higher education, which first was based on the German model and after World War II on the American model (Shin, 2012). Similarly, India was influenced by British educational practices (Chitnis, 1993). The different trajectories of these countries' higher education development have been resulted in quite different the economic development since independence.

India has a population of 1.21 billion living on 3,166,285 square kilometers, while the much smaller Korea has a population of about 50 million distributed on 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 rest on democratic political principles but they differ 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, while 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 poverty that prevails in India, Korea has emerged as a developed country with a high standard of living. In fact, Korea has achieved incredible growth over the past four decades and has emerged with 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 yet been admitted to the Organization for Economic Cooperation and Development (The World Fact Book, 2015).

Both countries uphold modern democratic values. After the separation from North Korea in 1953, South Korea made remarkable economic progress especially following the rise to power of Park Chung Hee in 1961 (Acemoglu, Johnson, & Robinson, 2005). Park created different economic development agencies, including the Economic Planning Board, the Ministry of Trade and Industry, and the Ministry of Finance; hence shifted Korea's economic focus to export oriented industrialization. Fully civilian government emerged in 1993 when Young-sam Kim became South Korea's first civilian president. He led the nation into full democracy and a major economy. Current President Park Geun-hye, daughter of former President Park Chung-hee, took office in February 2013 as South Korea's first female leader.

According to Das (2007), democracy came to India with 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 nationalist thinking, India took too long to grow to realize the benefits of globalization and denied itself a share in world trade and the prosperity that trade brought in the post-War era. With unproductive investments and an over-regulated market, the Indian economy could not attract foreign capital and the benefits of technology and world class competition were slow to be realized. Not partaking in the global market held economy back, and it also retarded India's education system (Das, 2007).

While Korea let the private sector grow freely, India rigidly controlled it. Entrepreneurs were discouraged by the Industrial Licensing Act of 1951, which introduced an ineffective bureaucracy that hamstrung the market and fostered corruption (Das, 2007).

While Korea was planning strategically and investing in education, allowing private sector to function, India's focus was on controlling the private sector that led to monopolies and resulted in the proliferation of non-productive plants in remote, uncompetitive locations, employing second-rate technology. The economy could not take off. The hands bureaucrats who made the decisions on the choice of technology, the size and location of plants, stifled the growth of Indian economy.

Indira Gandhi (1917-1984), daughter of Jawaharlal Nehru, became the fourth Prime Minister in 1977, she led for eleven years, and later, as the seventh 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).

When Narasimha Rao (1921- 2004) became the tenth Prime Minister in July 1991, his administration 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 a result, India became one of the fastest growing major economies in the world in the late 1990s (Delong, 2003).

A fundamental Indian ideology that did not accord a high place to making money had a long term impact on the country's economy. Traditionally, the merchant or *vaisya* 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 now in the midst of a social revolution rivalled, perhaps, only by the ascent of Japan's merchant class during the 1868 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. Its ubiquitous use of 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 one manifested by a boom in software development and business process outsourcing, especially for the Western countries. Gradually, a new self-confidence 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, it stands tremendous potentials for economic growth, about to burst forth.

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 away from Confucianism towards a European model. The Confucian model had focused on traditional Korean society, social relations, and other fundamental aspects of communities (Koh, 1996). Arrival of the Western missionaries, who opened schools in "the hermit kingdom" (the 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. It was 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, befitting the needs of a modern society. Schools opened in the fields of medicine, telegraphy, industry, mining, and agriculture. A 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 Korea. Today it is known as the Korea University (Korea University, 2016). The number of private institutions grew tremendously in the late twentieth century. There were 2,250 registered and thousands others not registered private institutions in Korea before the beginning of Japanese rule (Oh, 1964, p. 225 as cited in Kim, 2000).

Internationalization

Internationalization contributes to the knowledge-based economy. While both Korea and India have opened up themselves to 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 (Byun & Kim, 2011). There are also a number of joint degree programs that combine traditional degrees from two countries. Today, many Korean universities, for example, are offering joint degree programs with foreign institutions, most of which are located in North America (Byun & Kim, 2011).

The 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 might 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.

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, and far 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, the Korean Ministry of Education 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 there are only a few online programs.

A substantial number of intellectuals come to the United States under the auspices of the Fulbright Scholarship Programs, the East-West Center Fellowship Programs, the 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. Further, the homogeneity of the society, compliant people, and strong government with a forward-looking policy are other important factors contributing to the development of Korean economy.

Even though its higher education sector remains historically Korean in nature, an increasingly international influence has evolved in Korea. More than one third of Korean faculty and scholars have a doctoral degree from foreign universities. With about 5000 foreign academics holding PhDs employed in colleges and universities, Korea also sends Korean scholars abroad to obtain foreign qualifications, which has become an important element of a successful academic career in Korea.

Foreign exposure, particularly to the Western academic world, and learning English language is valued. So much so, Korea now 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 in the elementary schools beginning in the third grade (Parry & Lee, 2011).

Another aspect of Korean internationalization is seen in its attempt to attract international students. However, these efforts have even pale by comparison to the number of students who go abroad for study. The exodus of Korean students to English-speaking countries continues to rise. In 2010, Korea sent more than 250,000 abroad while attracting less than 85,000 international students. Korea also continues to experience a brain drain as half of the student going abroad for study never return. Moreover, Korea has failed to retain the international students that pursue higher education in Korea. Restrictions applied to foreign graduates seeking employment in Korea has led to a detrimental balance and not stemmed the losses that have been produced by the brain drain (Parry & Lee, 2011).

Projections for the upcoming decades are that economic and demographic problems will impact on Korea's higher education. 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. The 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 for the low government spending on higher education.

The South Korea government has introduced some reform projects to make graduates globally competitive. The government aims to develop some selected institutions as world class institutions to lead the country into the knowledge economy. As a result, many institutions 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 four 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.

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 institutions are opening branch campuses in Korea including the State University of New York, 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 'globalized education' without having to go abroad. However, the government doesn't

seem to be taking any significant steps toward relieving the family burden carrying higher education expenses or to encourage international students to settle in Korea after graduation (Parry & Lee, 2011).

Governance

Historically, both India and Korea have tended to largely remain subservient to the legacy their colonial powers. Korea aligned its higher education to that of Japan and India followed the British system. After independence, the Indian system began to work by acts passed by the parliament. However, most of the Korean higher education policies resulted from presidential decrees (Lee, 2003). Although an attempt was made by the United States military government in 1945 to set up an autonomous higher education institution in Korea under a board of trustees (as in the US) thus establishing Seoul National University, the Korean leaders never appointed the independent board despite frequent recommendations to do so (Shin, 2012). The Korean Constitution envisions university autonomy, and most of laws favor autonomy (Kim, 2000). The Ministry of Education controls the higher education system of Korea whereas the University Grants Commission (UGC), established in 1956, regulates India's higher education system (UGC, 2012).

Thus modern higher education development of India and Korea can be explained in terms of 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 adopted the German model through the Tokyo Imperial University which itself was modeled on German universities (Kim 2007; Lee 1989). Kyungsung was reorganized as the 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 in Korea and in India have adopted the department system, course-based credit hours, 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 -- the provision of a powerful "chair" system, emphasis on rigid hierarchy, policy makers considering all universities as equals, the idea of seminar courses, and the government policy not acknowledging institutional diversity in its administration.

In 2007, 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 budget share for tertiary education is quite low when compared with other countries: for example, it is 23.3% in Australia, 21.9% in France, 31.0% in Hong Kong, 18.4% in Japan, 23.7% in the United States, and 17.4% in the United Kingdom (World Bank, 2012). As a result, most public and 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, the average of which is 35%. Apart from the tax rate, another great advantage to the Korean people is that Korea has the lowest unemployment rate (4%) among OECD countries (2009). Hence good job prospects and low taxes give an additional incentive for families to invest in higher education.

Although both of these countries Korea and India have functioning higher education systems based on a similar cultural heritage and equally influenced by 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 India and Korea differ in their higher education enrollment rate although they share a similar academic culture and employ Western models (Hayhoe, 1995).

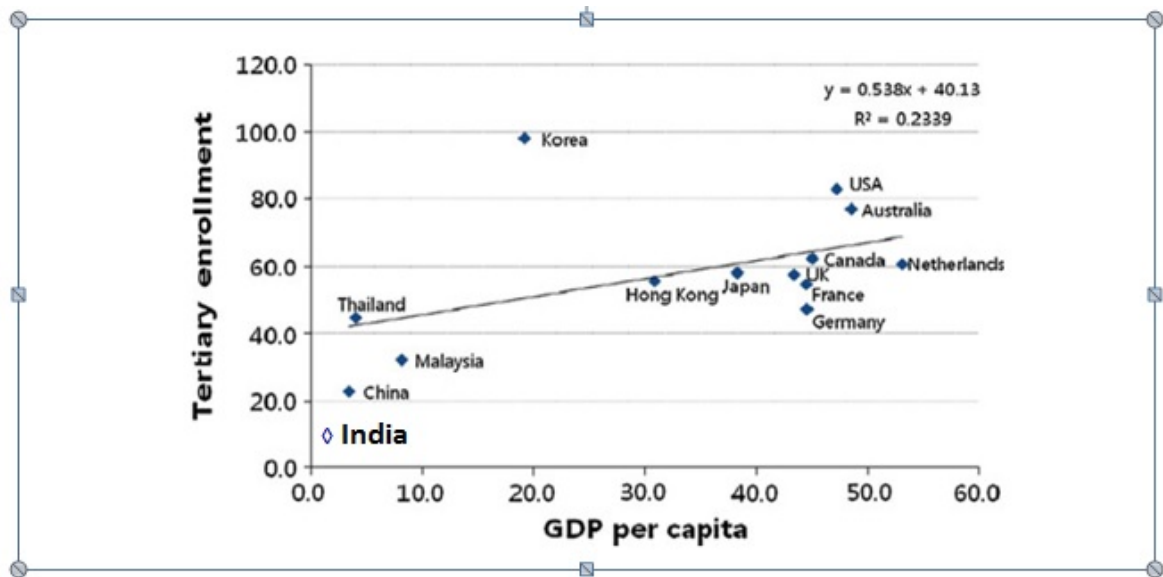


Figure 1 (adapted from Shin, 2011) Tertiary education enrollment rate (%) and GDP.
Note: GDP is thousand US\$ in 2008

As can be noted, there is a strong positive correlation between countries' GDP and tertiary enrollment. However, Korea and India vary dramatically. 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 and by subsequent governments, emphasizing the development of human resources to stimulate economic development. 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 resulted in a great return on investment (Choi, 1997). To demonstrate this relationship, I will borrow Shin's (2012) work, which succinctly illustrates the Korean scenario of how education and economy evolve hand in hand. Figure 2 below 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).

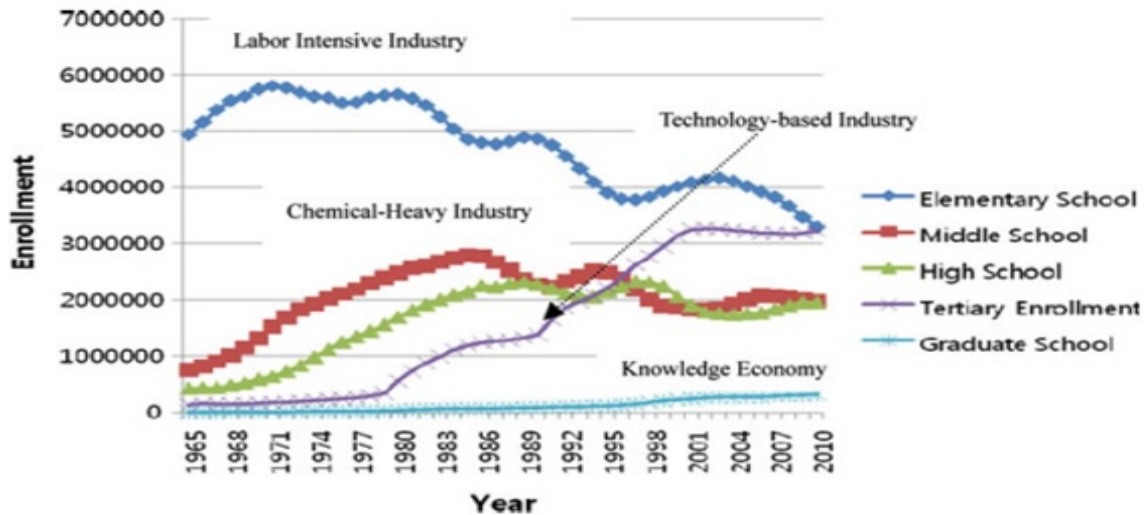


Figure 2. Education and economic development in Korea (adapted from Shin, 2012)

The Korean government has demonstrated the necessary dynamism to bring about timely changes in education. Along with the “dot com” boom in the 1990s, the Korean government again rightly identified the inflection point, shifting its focus from technology-based industry toward knowledge-based high-tech industry. The Korean government generously spent on research and innovation as evidenced by program such as Brain Korea 21 in 1999, designed to build research universities in Korea. The second round of the 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). The Korean government has tapped into the unique cultural advantage of parental willingness to pay for higher education, allowing the government to “under-invest” in higher education without hurting access and yet be able to allocate the highest level of research funding (3.5% of GDP) among OECD countries. This is a strategic move for Korea. It enters into the global knowledge economy while leaving the brunt of financing higher education to the private sector, mostly via providing performance incentives.

India’s Higher Education: Institutional Background

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. Today it serves 144 million college aged students (World Bank, 2012). As a result of an impressive expansion in higher education in 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 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 Institutes of Technology (NITs), Indian Institutes of Information Technology (IIITs), Indian Institutes of Management (IIMs), the 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). Nonetheless, Indian higher education system has been under the strict control of bureaucrats rooted in the legacy of the British.

Indian Higher Education - Access

Access has remained the most challenging issue in Indian higher education. The Gross Enrollment Ratio (GER) is an indicator of higher education access in terms of the total enrollment 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 yet to do. By the end of the Tenth Plan in 2006-07, only about a tenth of those aged 18-23 went to college (Government of India, 2012). The Eleventh Plan (2008-2012) aimed to increase the ratio to one fifth. However, India could only reach 15.2% (including distant education). Thus, roughly one seventh of college eligible children have access to some kind of college education (Government of India, 2012). Some recent studies have shown the GER to be 17.9% (e.g., Cash, 2015). This only means that India's higher education GER is rapidly increasing in the recent years.

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). The 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 enrollment, 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 education leading to doctoral degrees dramatically tapers off, shrinking to a small number.

Research-level education would help integrate India better with the knowledge economy. Explaining India's response to globalization, Selvan (2010) observes: "The 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 a right allocation and the appropriateness of the budget on higher education" (p. 99).

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. The Federation of Indian Chambers of Commerce and Industry has put forward a plan to work with the Government of India towards expanding higher education and thereby boosting the economy. The private sector has not only identified the issues, but also put forward a plan. The Federation's Vision 2030 is a well thought-out document that invites the Government of India to let the private sector play a major role in higher education. The Federation points out that given inadequate autonomy to the institutions of higher education, 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 show an immense potential for India to grow economically by making 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 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
Korea vs. India

Factor	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 newly industrialized 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." Further emphasis is 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 has recently put forward a comprehensive report "Higher Education in India: Vision 2030." Looking at the changing demographics of the nation, 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. There is a proposal to recognize 6109 institutions via the University Grants Commission, and to invest 13.93 million for students. The system is now more mass-based and democratized with up to 40% of enrolments coming from lower socio-economic strata (World Bank, 2012). Yet the percentage of GDP spent on education is 3.72 (less than one per cent dedicated to higher education). Public expenditures on higher education, including technical education, have varied between 0.45 and 0.6 of 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. The government is inviting the private sector to invest in higher education and permission is granted to generate institutional revenue by charging student tuition. In fact, India has been encouraging private investment in professional education since 1980s (World Bank, 2012). Foreign universities are allowed to open campuses. One official document mentions "permitting the private sector to establish a world class institution" so that the private sector can establish a world class institution in Management (ISB at Hyderabad) to linkages with world-class institutions.

Realization of State's Role. India needs to realize the state's 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 the 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 by its target-oriented policy towards export, whereas India has not been able to 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: Aim High. The Indian Ministry of Human Resource Development champions President Pranab Mukherjee's quote: "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. Allotment of an additional INR1,000 million each to universities in Mumbai, Kolkata, and Chennai and to the Punjab Agricultural University to make them world class (Budget Speech 2006); The Finance Minister’s allotment of an additional INR1 billion (USA 15.3 million) to the Indian Institute of Science, Bangalore to become a world level university (Budget speech 2005); and selecting universities and colleges with a “Potential for Excellence” started by UGC to identify at least 161 colleges, all show India’s desire to strengthen the higher education system. So far nine 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 *Times 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 enrollment 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 Human Resource Development Minister Kapil Sibal rolled out this announcement at 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 to become an educational destination is not different from that of Korea. The 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? The Department of Higher Education is responsible for the overall development of the basic infrastructure of Indian higher education. 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 equity and access. There is no mention of the world excellence.

Conclusion

India and Korea both reveal the symbiotic relationship between 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 exclusively on elementary, more particularly primary education. As a result, primary education is nearly universal in India, but the enrollment ratios in secondary and higher education are very weak. Public policy must 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, 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.

India needs tremendous expansion of access to higher education. Tapping into the potential of the private sector lessens the burden on the government. It has worked in Korea for the expansion of higher education. With a larger share taken up by the private institutions, Korea's nears universal access whereas India struggles to send less than 20 percent of eligible young men and women to college. The Indian government seems to allocate its budget strategically to focus on research and to provide incentives for institutions to produce human resources that align 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 per student, and it yet has the top enrolment ratios in tertiary education. This was only possible because the private sectors contribute 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 fully without tremendously increasing investment in higher education. Moreover, even though the private sector's role in education is culturally frowned upon, the Government of India will have to loosen the bureaucracy and embrace the private sector as a more integral partner in higher education.

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