# CHAPTER II

## Literature Review

This section, will briefly present an overview of human capital and the importance of English language in the labor market.

### 2.1. Human Capital

Tangible forms of capital are not the only type of capital. Schooling, a computer training course, expenditures on medical care, and lectures on the virtues of punctuality and honesty are also capital. That is because they raise earnings, improve health, or add to a person's good habits over much of his lifetime. Therefore, economists regard expenditures on education, training, medical care, and so on as investments in human capital. They are called human capital because people cannot be separated from their knowledge, skills, health, or values in the way they can be separated from their financial and physical assets.

Human capital is the stock of knowledge, habits, social and personality attributes, including creativity, embodied in the ability to perform labor so as to produce economic value. Alternatively, human capital is a collection of resources—all the knowledge, talents, skills, abilities, experiences, intelligence, training, judgment, and wisdom possessed individually and collectively by individuals in a population. These resources are the total capacity of the people that represents a form of wealth which can be directed to accomplish the goals of the nation or state or a portion thereof. It is an

aggregate economic view of the human being acting within economies, which is an attempt to capture the social, biological, cultural, and psychological complexity as they interact in explicit and/or economic transactions. Many theories explicitly connect investment in human capital development to education, and the role of human capital in economic development, productivity growth, and innovation has frequently been cited as a justification for government subsidies for education and job skills training (Becker 1993). Theory predicts that increases in the overall level of education can benefit society in ways that are not fully reflected in the 'private returns' of educated workers, what is otherwise referred to as the 'externalities of education'. For instance, social groups, communities or countries where the average schooling is higher offer, as a rule, better living conditions, both material and non-material, than those where the population is less educated (Vila, 2000). Robert (1991) developed a human capital model which shows that education and the creation of human capital is responsible for both the differences in labour productivity and the differences in overall levels of technology that we observe in the world today. This, according to him, explains the spectacular growth in East Asia that has given education and human capital their current popularity in the field of economic growth and development. Countries such as Hong Kong, Korea, Singapore, and Taiwan have achieved unprecedented rates of economic growth while making large investments in education.

Human capital theory rests on the assumption that formal education is highly instrumental and necessary to improve the productive capacity of a population. In short, human capital theorists argue that an educated population is a productive population. Human capital theory emphasizes how education increases the productivity and efficiency of workers by increasing the level of cognitive stock of economically productive human capability, which is a product of innate abilities and investment in human beings. The provision of formal education is seen as an investment in human capital, which proponents of the theory have considered as equally or even more worthwhile than that of physical capital (Woodhall, 1997).

Human Capital Theory (HCT) concludes that investment in human capital will lead to greater economic outputs however the validity of the theory is sometimes hard to prove and contradictory. In the past, economic strength was largely dependent on tangible physical assets such as land, factories and equipment. Labor was a necessary component, but increases in the value of the business came from investment in capital equipment. Modern economists seem to concur that education and health care are the key to improving human capital and ultimately increasing the economic outputs of the nation (Becker 1993).

In the new global economy, hard tangible assets may not be as important as investing in human capital. Thomas Friedman, in his wildly successful book, The World is Flat 2007, wrote extensively about the importance of education in the new global knowledge economy. Friedman, has exposed millions of people to human capital theory. The term itself is not introduced, but evidence as to why people and education (human capital) are vital to a nation's economic success, is a common reoccurring theme in the book.

Throughout western countries, education has recently been re-theorized under human capital theory as primarily an economic device. Human capital theory is the most influential economic theory of western education, setting the framework of government policies since the early 1960s. It is increasingly seen as a key determinant of economic performance. A key strategy in determining economic performance has to employ a conception of individuals as human capital and various economic metaphors such as technological, change, research, innovation, productivity, education, and competitiveness. Economic consideration per se in the past, however, has not determined education.

Noted economist, Adam Smith, in The Wealth of Nations (1976) formulated the basis of what was later to become the science of human capital. Over the next two centuries, two schools of thought were distinguished. The first school of thought distinguished between acquired capacities that were

classified as capital and human beings themselves, who were not. The second school of thought claimed that human beings themselves were capital. In modern human capital theory, all human behaviour is based on the economic self-interest of individuals operating within freely competitive markets.

Human capital theory stresses the significance of education and training as the key to participation in the new global economy. In one if its recent reports, the Organization of Economic Cooperation and Development (OECD), for example, claims that the radical changes to the public and private sectors of the economy introduced over recent years in response to globalization will be severe and disturbing to many established values and procedures. In another report, it explains internationalism in higher education as a component of globalization. The OECD believes that internationalism should be seen as an imperative in 21st Century capitalism. This form of capitalism is based on investment in financial markets rather than in manufacturing of commodities, thus requiring dependence on electronic technology.

The OECD also boldly asserts that internationalism is a means to improve the quality of education. In keeping with human capital theory, it has been argued that the overall economic performance of the OECD countries is increasingly more directly based upon their knowledge stock and their learning capabilities. Clearly, the OECD is attempting to produce a new role for education in terms of human capital subject required in globalized institutions.

Fagerlind and Saha (1997) posit that human capital theory provides a basic justification for large public expenditure on education both in developing and developed nations. The theory is consistent with the ideologies of democracy and liberal progression found in most western societies. Its appeal was based upon the presumed economic return of investment in education at both the macro and micro levels. Efforts to promote investment in human capital were seen to result in rapid economic growth for society. For individuals, such investment was seen to provide returns in the form

of individual economic success and achievement. Most economists agree that it is human resources of nation, not its capital nor its material resources, which ultimately determine the character and pace of its economic and social development. Human resources constitute the ultimate basis of the wealth of nations. Capital and natural resources are passive factors of production, human beings are the active agencies who accumulate capital, exploit natural resources, build social, economic, and political organizations, and carry forward national development.

## 2.2. Application of Human Capital Theory to Educational System

In order to enhance human development in the general society, it is necessary to apply the theory of human capital to educational systems. By such means, productivity is enhanced and sustained based on an increased and diversified labor force. Babalola (2003) asserts that the contribution of education to economic growth and development occurs through its ability to increase the productivity of an existing labor force in various ways. Therefore, economic appraisal of educational investment projects should take into account certain criteria,

According to Psacharopoulos and Woodhall (1997):

a. Direct economic returns to investment, in terms of the balance between the opportunity costs of resources and the expected future benefits;

b. Indirect economic returns, in terms of external benefits affecting other members of society;

c. The private demand for education and other factors determining individual demand for education;

d. The geographical and social distribution of educational opportunities;

e. The distribution of financial benefits and burdens of education.

Education plays a great and significant role in the economy of a nation; thus, educational expenditures are found to constitute a form of investment. This augments individuals' human capital and leads to greater output for society and enhanced earnings for the individual worker. It increases their chances of employment in the labor market, and allows them to reap pecuniary and non-pecuniary returns and gives them opportunities for job mobility. Education is a source of economic growth and development only if it is anti-traditional to the extent that it liberates, stimulates, and informs the individual and teaches him how and why to make demands.

## 2.3. Stock of Human Capital in the World

Barro and Lee (2010) used comparable data to estimate the current stock of human capital in the world; focus is on population aged 15 years and over. The data set covers 146 countries during the period 1950-2010. The table below presents data in eight different regions and by gender. The gender disparity is defined as the ratio of female and male average years of schooling.

Table 1. Average Years of Schooling by Gender

| Region | Male | Female | Average |
|---|---|---|---|
| Central Asia | 9.35 | 9.99 | 9.69 |
| East Asia and Pacific | 8.47 | 8.01 | 8.24 |
| Eastern Europe | 10.24 | 9.95 | 10.09 |
| Industrialized Countries | 10.92 | 10.71 | 10.81 |
| **Latin America and Caribbean** | **8.63** | **8.33** | **8.48** |
| Middle East and North Africa | 8.05 | 7.28 | 7.65 |
| South Asia | 6.41 | 4.79 | 5.62 |
| Sub-Saharan Africa | 5.98 | 4.89 | 5.43 |
| **World** | **8.41** | **7.84** | **8.12** |

The average number of years of schooling in the world is 8.12 years, with males having 8.41 years of schooling and females 7.84 years of schooling. A person in an industrialized country has the highest length at 10.81 years, while a person in Latin America and the Caribbean has an average of 8.63 for males and 8.33 for females. There is a need for a strong policy thrust if those disparities in human capital are to be bridged.

Table 2: Annual Growth Rate in Years of Schooling, 1950-2010

| Region | Male | Female | Average |
|---|---|---|---|
| Central Asia | 1.24 | 1.67 | 1.46 |
| East Asia and Pacific | 1.38 | 2.28 | 1.76 |
| Eastern Europe | 1.05 | 1.40 | 1.23 |
| Industrialized Countries | .90 | 1.06 | .98 |
| **Latin America and Caribbean** | **1.64** | **1.81** | **1.72** |
| Middle East and North Africa | 2.66 | 3.72 | 3.05 |
| South Asia | 2.00 | 2.75 | 2.26 |
| Sub-Saharan Africa | 2.67 | 3.18 | 2.89 |
| **World** | **1.53** | **1.88** | **1.69** |

Industrialized countries have much higher stocks of capital than developing countries, so the next question is whether or not past performance in human capital accumulation indicates eventual convergence. Human capital convergence has been observed in past decades as developing countries continue to show an increase in growth rates.

Education has been considered a key determinant of economic growth; the central role of technology has provided the impetus for the focus on education. There seems to be a strong correlation between an educated population and technological innovation.

The link is made explicit in what is termed investment in humans: workers needed education in order to utilize new technologies, thereby increasing the total productivity and inducing economic growth. The accumulation of human capital through education and on-the-job training fosters economic growth by improving labour productivity, promoting technological innovation, and adaptation.

Barro and Lee (2010) estimated that increasing average years of schooling by one year increases per capita GDP by 1.7% to 12.1 %, depending on specification; Cohen and Soto (2007) calculate returns to years of schooling at 12.3% to 22.1%. Testing the impacts of schooling quality on growth, it was found that a unit increase in a country's average cognitive test scores increases per capita GDP growth rate by 1.2 to 2.0 percentage points. Moreover, increasing average math and science scores by one unit increases per capita GDP growth rates by 2.0 points, and by 2.3 points for low-income countries. Overall, studies found that education significantly and positively correlated with economic growth and argue that causation runs from education and growth in line with human capital growth models.

The concept of human capital has relatively more importance in labour-surplus countries. These countries are naturally endowed with more of labour due to high birth rate under the given climatic conditions. The surplus labour in these countries is the human resource available in more abundance than the tangible capital resource. This human resource can be transformed into human capital with effective inputs of education, health, and moral values.

The transformation of raw human resource into highly productive human resource with these inputs is the process of human capital formation. The problem of scarcity of tangible capital in the labour surplus countries can be resolved by accelerating the rate of human capital formation with both private and public investment in education and health sectors of their national economies. The tangible financial capital is an effective instrument of promoting economic growth of the nation. The

intangible human capital, on the other hand, is an instrument of promoting comprehensive development of the nation because human capital is directly related to human development, and when there is human development, the qualitative and quantitative progress of the nation is inevitable. This importance of human capital is explicit in the changed approach of United Nations towards comparative evaluation of economic development of different nations in the world economy.

United Nations publishes Human Development Report on human development in different nations with the objective of evaluating the rate of human capital formation in these nations. The statistical indicator of estimating Human Development in each nation is Human Development Index (HDI). It is the combination of "Life Expectancy Index", "Education Index" and "Income Index". The Life Expectancy Index reveals the standard of health of the population in the country; Education Index reveals the educational standard and the literacy ratio of the population; and the Income Index reveals the standard of living of the population. If all these indices have the rising trend over a long period of time, it is reflected into rising trend in HDI.

The Human Capital is developed by health, education, and quality of standard of living. Therefore, the components of HDI viz, Life Expectancy Index, Education Index, and Income Index are directly related to Human Capital formation within the nation. HDI is indicator of positive correlation between human capital formation and economic development. If HDI increases, there is higher rate of human capital formation in response to higher standard of education and health. Similarly, if HDI increases, per capita income of the nation also increases. Implicitly, HDI reveals that, the higher the human capital formation due to good standard of health and education, the higher is the per capita income of the nation. This process of human development is the strong foundation of a continuous process of economic development of the nation for a long period of time. This significance of the concept of human capital in generating long-term economic development of the nation cannot be neglected. It is expected that the macroeconomic policies of all the nations are

focused towards promotion of human development and subsequently economic development. Human Capital is the backbone of Human Development and economic development in every nation.

Mahroum (2007) suggested that at the macro-level, human capital management is about three key capacities, the capacity to develop talent, the capacity to deploy talent, and the capacity to draw talent from elsewhere. Collectively, these three capacities form the backbone of any country's human capital competitiveness. Recent U.S. research shows that geographic regions that invest in the human capital and economic advancement of immigrants who are already living in their jurisdictions help boost their short-term and long-term economic growth. There is also strong evidence that organizations that possess and cultivate their human capital outperform other organizations lacking human capital (Crook, Todd, Combs, Woehr, and Ketchen, 2011).

## 2.4. The Importance of English Language in the Labor Market

The phenomenon of sudden globalization of the world and the consequent need for efficient communication in English language has become a basic need for professionals in various fields and for those preparing to join a labor market increasingly competitive. The domain of English language means growth, development and, above all, better able to keep up with rapid changes taking place in this new technological century.

Proficiency in English language is one of the most basic parts of an individual's human capital portfolio. The productive functions of language are manifold, in both the labor market and everyday life. Language is used to express one's emotional status, providing the counterpart with necessary information on the otherwise unobservable inner state of mind, as well as expressing one's own identity and demands. Language is used as the main medium of social interaction. While this

interaction does not necessarily contain any information conveyed, it provides the basic conditions for a productive environment. Language is the medium used for the record-keeping, organization, and processing of information and facts. Finally, the concept of linguistic determinism in linguistics states that language determines the way in which individuals are able to think and structure their own thoughts (Crystal 2010).

The importance of English language skills in the labor market has been growing during recent decades, in a process that is likely to continue for some time. The reduced demand for manual labor and the ongoing transformation of the labor market towards increasingly information-based production has drastically increased the need for language and literacy skills. Especially with the emergence and diffusion of ICT usage into any niche of the labor market, there are hardly any occupations that do not require a minimum of speaking, listening, reading, and writings skills (Ingo E. Isphording 2014).

The acquisition of reading and speaking skills in a foreign language can be modeled as the economic decision weighing off the expected benefits and costs of speaking a new language. Formalized models are provided by Selten and Pool (1991) and Church and King (1993). The expected benefits of speaking a new language combine utility gains through being able to communicate in a certain language. The benefits and incentives of learning a new language can be divided into internal and external motivations. Internal motivations mainly refer to the nonmarket value of languages. Speaking a new language offers potential utility gains through easier access to new information and an increased population of potential communication partners. Furthermore, it also offers increased reputation, prestige and recognition among peers. For some, the learning process itself might lead to utility gains through being a joyful process.

From an economic perspective, this non-market value of languages is accompanied by a market value related to the relative importance of a language to a country. This relative value is

dependent on a range of factors: it is shaped by the applicability of a language in direct communication with foreign customers in tourism and services. Its value is related to its potential in international trade to reduce search, translating and information costs when dealing with foreign information. In particular, the latter role of languages in shaping international trade flows has gained significant attention in the economic literature. Although English acts as lingua franca in modern international trade, knowledge in the trade partner's original language remains a crucial variable, especially in the development of long-term business partnerships and overcoming further cultural hurdles. Further, lower linguistic barriers ease the promotion of trade and commerce by immigrants through easier access to the destination country. A range of studies proxies these linguistic barriers by summary statistics of linguistic distance between two trade partners, using grammatical information (Lohmann 2011) or information on pronunciation of word lists (Isphording and Otten 2013). Common findings of these studies are significantly reduced trade flows by higher linguistic hurdles.

On the micro level, language barriers are translated into expected benefits of learning a new language by the willingness of employers to pay for foreign language proficiency. Individuals have to weigh these potential utility gains from learning a new language against the costs associated to the language acquisition. These costs come in terms of direct monetary costs for language classes and indirectly by spent effort and foregone wages. The size of the costs is related to a range of correlates. Apart from a fundamental and unobservable heterogeneity in the ability to learn languages, the difficulty of learning a new language is influenced by the dissimilarity between the first language and the acquired language. Dissimilarities between languages raise large barriers in the acquisition process. While it might be comparably easy to learn a language from one's own language family (e.g. German, English, and Swedish from the Germanic language family, or Romanian, Spanish, and Italian sharing the Romance language family), the acquisition becomes much more difficult for linguistically distant languages, e.g. for a European attempting to learn

Mandarin or Japanese. Isphording and Otten (2013) provide an extensive analysis of the role of linguistic borders in language acquisition. Another crucial determinant of the costs of language acquisition is the age at which the language acquisition takes place. Linguistic and neurobiological research has identified a crucial "critical period" in early adolescence until when language acquisition takes place almost effortlessly. The ability to acquire new languages subsequently decreases, in a process that continues into adulthood. As second language education is typically associated with secondary schooling, most of the foreign language acquisition takes place after this critical period. Acquiring a new language in adulthood faces an even more reduced ability to learn.

A rational and utility maximizing individual will weigh these costs of language acquisition against expected benefits of speaking the new language. Ginsburgh and Prieto-Rodriguez (2011) provide an overview on returns to foreign languages in the EU. Their results indicate distinctive wage premier paid for foreign languages, with a strong heterogeneity across different countries and the wage distribution. Knowledge of foreign languages mainly pays off in high-skilled occupations. While English as the main lingua franca is rewarded in any country, in Southern European countries it competes in importance with Romance languages, which seem to play the role of local lingua franca, such as French in Spain. This importance is backed up by Isphording (2013), who estimates large returns to foreign language skills within a sample of immigrants in Spain. Again, the highest returns are paid for English skills, closely followed by the returns to French skills.

Furthermore, Williams (2011) finds significant positive returns to foreign language skills in Western European countries, which he relates to the importance of incoming tourism from specific language groups. Here, a similar logic as in the case of international trade applies, whereby tourism flows increase the applicability of language skills in the service sector, as well as an employers' willingness to pay for proficiency in a specific language.

Wuthiya Saraithong (2013) in his study, "The economic perspective of labor's English language proficiency in the AEC era", concluded that, prospective workers' success in improving English proficiency partly lies in their own characteristics. He further stipulated that policy measures should be put in place to organize public-sponsored training programs aim towards the improvement of students' English language proficiency. Developed and developing countries are confronted by most of the problems that could limit the capacity of expansion in education to stimulate growth and development. Some of these problems are: underemployment, low absorptive capacity, shortage of professionals, and regional imbalances.