

# Role of Education in Economic Development of Pakistan

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## Abstract:

Education is considered to play a key role in the economic development of any country because, it is the mechanism through which knowledge, skills and experience regarding different fields can be acquired and ultimately creating the comparative advantage for the country. Hence, the researcher of the study decided to investigate the role of education through the research scholarship in terms of human capital, labor productivity, family, national trade and social equality in order to find out their contribution in the economic development of Pakistan. Hence, the researcher while delving into the matter amazingly found that human capital through the accumulation of new knowledge, ideas and technological know-how, labor productivity enhancement through the effective and efficient human resource, trade openness policy through tariff reforms in order to increase export, the key role of family, as the individuals make decisions at that level, creating social equality through re-distributive policies, all can play their contributory role in the economic development of Pakistan.

**Keywords:** Economic Development, Pakistan, Education

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## 1.1 Introduction:

Education is an essential constituent in any country's economic development as it plays a decisive role in overall capacity building and then, fastening the economic growth through skills, knowledge and creativity. However, majority of the global population living in developing countries need to modify their educational structure in order to improve their productivity in multiple sectors of the economy through ejecting highly skilled laborers and dealing with their development needs for rapid industrialization, that is the requirement of the present day reality. Although, the Pakistan in this regard is taking serious attempts to raise the quantity and quality of education through delivering improved educational facilities within minimum time (Kiani, 2010). However, Schumpeter (1961) defined economic development as transferring capital from current methods of production to new, innovative, productivity-enhancing methods and Schumpeter regarded economic development as a fundamental transformation of an economy. He emphasized that, by changing the industrial structure, educational and occupational characteristics of the population, the entire social and institutional fabric can be changed and the growth is measured by putting more people to work within an existing economic framework, however, economic development is focused on changing that framework so that, people can work more productively, with an integrated economy-wide shift towards higher value-added activities. Economic development is essential to creating the conditions for economic growth and ensuring our economic future (Feldman et al, 2016). Education can contribute in the development of human capital of a society and hence provides a strong foundation for the socio-economic development of the country (Memon, 2007). However, it is also observed that, developing countries do suffer from significant income inequality and limited educational attainment (Wolfson, 1997). However, they receive international aid, but many of them are even then unable to deliver adequate medical, social, and educational institutions that ensure the whole population to thrive and despite their economic growth, an insufficient support for economic development, sustainable outcomes those lead to broad-based improvements in quality of life and widespread prosperity remain unachievable. Hence, Keefer and Knack (2002) found that income inequality and polarization correlate with lack of economic development and that lead towards an environment of uncertainty.

Well, it is also a fact that, human society consists of monetary and non-monetary factors and they both are to be considered whenever any activity is taking place. Education is one such activity which both the way affects and gets affected. It has multifaceted impacts on the society and its economy. It induces economic growth and development positively on one hand and reduces poverty by creating a cohesive social and politically stable environment which attracts investment and makes workforce comparatively more dynamic and productive, more socially polite (Afzal et al, 2010). *Hence, this study has focused upon the role of human capital, labor productivity, family, national trade and social equality in the economic development of Pakistan and will thoroughly investigate their contribution through the recent available scholarship.*

## **1.2 The Role of Education in Economic Development:**

There is good number of economic theories; those have been postulated after the Adam Smith (1776) seminal work "The wealth of nations". The most debatable two models exogenous and endogenous are widely discussed, elaborated and criticized along with the Rostow (1960) five stages of economic development. Interestingly, all theories have invested enough amount of their attention to innovation and technological advancement. Hence, it becomes an established fact that physical capital formation has been the axiom of the past and human or intellectual capital has become the core subject under scrutiny. That is where, education always comes into the equation because, it is a tool by which any developing or developed country can enhance its productivity and efficiency of their citizens and hence producing skilled manpower, that is capable of leading the economy towards the path of sustainable economic development (Memon, 2007). Moreover, Education is one of most determined variables that contribute in the advancement of human capital across the globe. Hence, several studies mention including the one "the pace of economic growth of the developed countries could not be achieved without the stock of human capital" (Javed et al, 2008, p133). It is the persistent uplifting of the knowledge economy that has created powerful new inducement for the general public to develop their talent and abilities through education (OECD, 2012). In the case of Pakistan, the situation is not as admirable as Pakistan has doubled its educational budget amounting to \$7.5 billion including the federal and provincial budgets since 2010 but, the outcome of that increase has been not translated into the path of economic development (Kugelman, 2016). However, Pakistan is spending less than the global average on its research and development and technological progress especially in the domain of science has become the word of mouth in 21<sup>st</sup> century. However, Government of Pakistan is doing its best to promote science and technological education through HEC (Higher education commission) but, the steps taken are not enough to compete with the progress made in the past through education like Taiwan, Singapore and South Korea (Kiani, 2010).

## **2.1 The Role of Human Capital in Economic Development:**

Human capital has been considered a vital ingredient in any country's economic prosperity since the 1950s as neoclassical growth theory (1957) found long-term relationship between pooling up of human capital on growth. Although, Cobb-Douglas (1927-47), Solow (1957), Swam (1956), all postulated a peculiar model that has connected growth with physical and human capital (Shobande et, 2014). However, endogenous growth theory has taken technological progress, or the growth of total factor productivity, as a function of the level of education or human capital. The fundamental idea is that an educated work force would be better at generating, executing, and adopting new technologies, hence producing growth (Romer, 1990). He further added that human capital may have direct influence on productivity by determining the capacity of nations to innovate new technologies, those suited to their domestic production. Moreover, Nelson and Phelps (1966) model highlighted human capital levels affects the speed of technological catch-up and diffusion. It is assumed that that the ability of a nation to adopt and implement new technologies from abroad is a function of its domestic human capital stock (Benhabib & Spiegel, 1994). Barro (1991) has studied the relationship between human capital and economic growth and it was concluded that, real gross domestic investment is highly significant and have positive relationship with GDP. Iyigun and Owen (1996) has considered the human capital accumulation and by that means including learning by doing and formal education is somehow unconditionally advantageous for the economic growth. Abbas (2001) has compared the effect of human capital on economic growth in India and Pakistan and studied human capital in terms of primary, secondary and higher secondary levels. The results showed that in both South Asian countries secondary schooling was positively related and had significant relationship with economic growth with 1% significance level, while primary education has positive effect on economic growth in India but, higher education in Pakistan. In addition, there are quite good research scholarship is available that connects between raise in the level of education and in the quality of human capital and then, by that means economic growth. It is also observed that, higher educational achievement is expected to have an impact on economic growth by improving the productivity of workers because, an educated workforce is better able to implement new technologies and create novel ideas those eventually improve efficiency. Although, the microeconomic level researches generally find a strong relationship between income and educational achievement, but, however, macroeconomic studies have found contradictory results until now (Khan, 2005).

## **2.2 The Role of Labor Productivity in Economic Development:**

Schultz (1961) argued initially that, human capital is an essential element which not only improves any firm's assets but also help employees to increase their productivity in order to sustain competitive advantage of the organization. Sharp (2000) considered labor productivity as the most commonly used measure of productivity because, it is a main factor that determines the potential for living standard growth as the higher level of per capita income is linked with more produced output per worker or employee. It is employed to find out the level of efficiency with which an economic system can transform its labor into output and as it represents the most important economic indicator of economic activity on micro and macro level. It is the indicator for measuring the productivity as it is the output corresponding to input obtained from the workforce or is defined as added value per each hour worked (Lieberman & Kang, 2008). Most economists argue that there are merely two paths through which any economy can increase its level of economic output: either through more labor effort applied in the production process or through raise in productivity of the workforce (Highfill, 2002). The significance of labor productivity is well described by Nobel Laureate Paul Krugman: "Productivity isn't everything, but in the long run it is almost everything. A country's ability to improve its standard of living over time depends almost entirely on its ability to raise output per worker" (1994). While analyzing carefully and thoughtfully Pakistan's labor productivity, the trend is both disturbing and profoundly distressing. The labor productivity (defined as GDP divided by the employed labor force) increased at 4.2 percent per annum in 1980s, but by the 1990s, this had declined to 1.8 percent, descending further to 1.3 percent during 2000–15. However, since 2007, it has grown at just 1 percent. While comparing these statistics to neighboring country, India, the trend has moved in the opposite direction, with labor productivity increasing satisfactory to over 5 percent during 2000–10 (Amjad & Awais, 2016)

## **2.3 The role of Family in Economic Development:**

It is observed that, when individuals make decisions, they rarely think in terms of national or global consequences but, most often think in terms of family or household and considering the likely consequences and perceptions of how their decisions will affect the family unit. Economic development leads to a breakdown of the family as a production unit and this change happened following the increased division of labor and of specialization within societies as economies move away from a predominantly agricultural base to the industrial one. The evidence indicates that as countries develop economically, an associated reduction occurs in fertility and in family size as in the example of East Asian miracle where the fertility rate went down dramatically, It is also seen that increased level of income accounts for some of the force behind this reduction, but it is mostly due to increased levels of female education and greater employment opportunities for women outside their home. The logical calculation of advantage changes from children making a net contribution to their parents' incomes will change to be their net cost (Canning et al, 1994). A large and established body of research evidence has described the significance of the family as a key institution for accomplishing the core functions like production, consumption, reproduction, and accumulation; those are associated with the social and economic empowerment of individuals and societies (Mokomane, 2012). Likewise, the positive correlation was found between human capital and economic growth, between infrastructure and economic growth, between healthy institutions and economic development, as well as health and income per capita, are widely accepted relationships in international economic development. This leads this discussion towards population control, that has been mainly promoted, basically on two main arguments, first the existence of an inverse relationship between population growth and development derived from the law of diminishing returns as suggested by Malthus (1798), and the Neo-Malthusianism view which considers people as demolishers of resources and breakers of environmental limits. However, these arguments can be reduced to four main points. The first one is that, the rapid growth in population means the spread of poverty and rapid growth exacerbate already bad conditions like poor health, malnutrition, illiteracy, and unemployment (this can be a case in Pakistan). The second one is that, the population endangers government stability in developing countries and can possibly stimulate confrontation between developed and developing countries. The third can be, the population can push future generations to scarcity, and can lead towards unsustainable environment carrying capacity. The fourth can be, the population growth is an indicative of the larger problem of women's oppression e.g. the more children she would bear, the less opportunity, she would have for her own self-actualization and development (this can also be a case in Pakistan) (Aguirre, 2004).

## **2.4 The role of National Trade in Economic Development:**

Historically, it was found that, during the nineteenth century, most of the world's industrial production was concentrated in Great Britain and hence, large increases in industrial production and population in resource-poor Britain have led to a rapidly rising demand for the food and raw material exports of the so-called regions of recent settlement (the United States, Canada, Australia, New Zealand, Argentina, Uruguay, and South Africa). This can be illustrated as, during the 19<sup>th</sup> to 20<sup>th</sup> century from 1815 to 1913, Britain's population had increased threefold, its real GNP increased 10 times, and the volume of its imports increased 20 times. This growth phenomenon reached out to newly established lands through the familiar accelerator multiplier process (Salvatore, 1998). Hence, the

export sector was the leading sector and operated as an engine of growth for those lands during the nineteenth century (Nurkse, 1959). However, there have been a good evidence regarding the effects of international trade on economic growth through facilitating capital accumulation, industrial structure upgrading, technological progress and institutional advancement. Although, increased imports of capital and intermediate products, which are not available in the domestic market, may result in the rise in productivity of manufacturing (Lee, 1995). More active participation in the international market by promoting exports leads to more intense competition and improvement in terms of productivity (Wagner, 2007). Trade openness has filled the key space in the policy formulation of developing countries for the last few decades. Hence, the existing scholarship shows that the effect of trade liberalization on economic growth has four main channels; while increasing the level of capital mobility, factor price equalization, knowledge spillovers and the trade-influencing technology. Although, the effect of trade on growth can be signified to trade openness influencing technological change (Umer, 2014). Moreover, Afonso (2001) argued that trade openness can be beneficial to growth, if it facilitates exchange of technology and enhances the flow of goods and services. In order to follow the same international trend, the Government of Pakistan in 1990s launched tariff reforms program with thoughtful purpose to increase export. However, the result of implementation of the tariff rate policy is ambiguous even though, the tariff structure of that era was simple. In addition to that, in the period of 1996-1997, the state of Pakistan had also carried out tariff reform package in order to increase export and industrial production. Similarly, the trade policy of 2000s was to stimulate export culture in the country by keeping interest of state and upper-class community. However, the key focus of that policy was to cut down anti-export biasness by imposing ban on tariff for accomplishing sustainable export-led higher economic growth based on market driven forces. Even though, the decision makers tried hard and particularly used exchange and monetary policy tools to facilitate trade and attaining more value addition in the goods and services being exported in order to increase export earnings (Umer, 2014).

### **2.5 The role of Social equality in Economic Development:**

It is a common perception among economists that economic efficiency and social equality can't go together because they are not compatible if not outright mutually exclusive. Although, one of the core ideas behind this perception is that increased inequality will enhance private as well as social returns to education and to exerting effort in the hope of attaining a higher standard of living. However, redistributive policies can prevent these tendencies and clear incentives by penalizing the rich through taxation and rewarding the poor (Gylfason & Zoega, 2003). Barro (2000) has used number of countries over the period of 1965 to 1995 in order to estimate the relationship between economic growth and inequality and he found that that increased inequality is inclined to retard growth in poor countries and boost growth in richer countries. However, as the study done by Garcia-Penaluna (1995) claimed that, in rich countries increased inequality tend to discourage education and growth by increasing the number of poor people who cannot afford education whereas in poor countries, inequality is increased while improving economic growth. It is also observed that, numerous models have been formed to explain the clear absence of a trade-off between efficiency and equality. First, large inequalities of income and wealth may trigger political demands for transfers and redistributive taxation. It is to the extent that transfers and taxation distort incentives to work, save and invest, inequality may impede growth (Gylfason & Zoega, 2003). However, the studies done by Li and Zou (1998) and Forbes (2000) have found that higher levels of inequality will increase growth. Li and Zou argued that by increasing the Gini coefficient by one standard deviation, it will raise the annual growth rate by almost half a percentage point. Although, Forbes (2000) found that the growth rate will increase by 1.3 percentage points. Hence, it is hard to conclude that whether increased inequality can trigger the rapid economic development of any developing country like Pakistan or it becomes the cause of lethargic economic growth.

### **3.2 Conclusion**

This study was conducted in order to understand the role of education in the economic development of Pakistan and found that, education is a vital element in any country's economic development as it has played a significant role in comprehensive capacity building and fastening the economic growth through skills, knowledge and creativity. That is why, economists always argue that there are only two ways by which any state can increase its level of economic output: either through more labor effort applied in production process (specifically, more jobs) or through increases in the productivity of the workforce (Highfill, 2002). While finding the role of human capital in economic development,

It was found by Iyigun and Owen (1996) that the accumulation of human capital and learning by doing as well as formal education both are somehow downrightly beneficial for the economic growth. While investigating the role of trade in economic development, it was clearly observed that the globalization momentum has pushed the topic of trade openness at the core, hence it has filled the key space in the policy formulation of developing countries (like Pakistan) for the last few decades. Therefore, the existing scholarship has shown that the effect of trade liberalization on economic growth has four main channels; increased capital mobility, factor price

equalization, knowledge spillovers and the trade-influencing technology (Umer, 2014), two of them directly linked to education. Moreover, while forwarding the investigation and looking into the role of family in this regard, it was discovered that, a large and established body of research evidence has described the significance of the family as a key institution for accomplishing the core functions like production, consumption, reproduction, and accumulation, those are associated with the social and economic empowerment of individuals and societies (Mokomane, 2012). Consequently, those all are the constituents of economic development. In the same line of discussion, when social inequality was scrutinized, it was found through Barro (2000) that that increased inequality is inclined to retard growth in poor countries (like Pakistan); however, the scholarship on the role of inequality in economic development is inconclusive. Lastly, delving into the role of education as a whole, it was concluded that, it is a tool can be used by any developing or developed country in order enhance the productivity and efficiency of their citizens and hence producing skilled manpower, that is capable of leading the economy towards the path of sustainable economic development (Memon, 2007). Thus, it is concluded through the recent scholarship at the end that, human capital, labor productivity, family, national trade and social equality are somehow related to the economic development of Pakistan.

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