**Human Capital Development and Economic Growth in Pakistan**  
**1980 – 2010**

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**ABSTRACT**

**Purpose:** Human capital is chiefly measured as a foremost and progressive source in the economic development. This study examines the association accompanied by human capital and economic growth in Pakistan through use of summative time series data since 1980 to 2010. In a feeblestate like Pakistan, an enormous percentage of population exists in under the state poverty mark. It is usually said that during economic escalation, we can restrict unemployment and scarcity but the condition is different in Pakistan. Many studies have been conceded out to detect the connection relating to human capital with economic growth in other countries. These other studies recommend us human capital development pacts by such competencies like education, skill development, literacy, and experience and health facilities. This study was grounded on the basis of secondary source of the data. The relevant data were serene for the period of 1980-1981 to 2009-2010. The relevant data used for this study were taken from World Development Indicators – 2012, State Bank of Pakistan and Pakistan Economic Survey (of various years). To inspect the association linking human capital development and economic growth, the precise model cover to analyse by utilizes the technique of Ordinary Least Squares (OLS). Gross Domestic Product (GDP) is dependent variable while ED, HC, MORT, GINI, IGR, CPINF all is independent variables in our model. Regression errors within equations of these models resolve by auto correlation by the support of Durbin Watson (DW) test statistic. The results and finding of this study showed that there is long-run affiliation among education enrolment, economic growth, investment growth, CPI inflation, fixed capital formation and head count ratio. Education Enrolment Index (EEI) having important as well as optimistic collision on economic growth; we simply called it enhance in education enrolment boosts economic growth. This study is basically an effort to give us the realistic validation on the association connecting human capital development along with economic growth.

**Keywords:** Economic Growth, Enrolment Index, Human Capital, Pakistan

**INTRODUCTION**

In a feeblestate like Pakistan, a massive portion of people is alive under domestic poverty line. In general; we are able to say that with the help of economic growth, we can limit unemployment plus poverty; in case of Pakistan the condition can be different. In Pakistan, we cannot drop off the poverty via only economic growth. On the other side it is the essential to perk up each and every indicators of economic development. Consequently it is considered that spending in human capital speed up their personal progress and provides them the capability to get free from scarcity and poverty; for these they needs education and health services at the same time.
also need some deeds of earnings security.

It is measured with the intention of capital and natural resources are the passive factors, at the same time as human capital is an active factor of production. Person can boost capital and erect up social and economic establishments. We cannot build up anything for economic growth, if we cannot build up the skillfulness of our individuals. It is understandable that if we would like to employ other resources efficiently subsequently we need to grow the capability of our individuals, over and done with education, literacy, living standard enhancement and skill development; as a result of that we may perhaps cut down the unemployment level as well as improve the progression of growth and development.

**HUMAN CAPITAL: DEFINITION**

At start, the connections linking economic expansion growth and human capital are as plain as a pikestaff. Persons acquire education and training to build up their proficiency, in support of the economy. The employment expertise increase organisational level of output, by the side of state yield and economic growth. Proper education and training is not the lonely basis of human capital and development. Some other bases include inborn virtues, casual tutoring, by the side of community, social, religious and family environmental aspects. All earlier discussed stuff is also forces how will informal training and education contributes in the development of human capital.

**HUMAN CAPITAL DEVELOPMENT: A CONTINUAL PROCESS**

Human capital growth and development is continuous process simply we describe an everlasting progression. A person’s current development and growth comparison is biased by human capital developed in the early stage of life, together with the chances offered to them to more develop him and perform new ability and skills. These certain requirement is necessary for the growth and development of further human capital is trait to:

- Self-efficiency, whereby expertise obtained at earlier phase of life improve the abilities achieved at subsequently phases; and
- Influential complimentarily, whereby formerly obtained expertise boost returns on or after investments on human capital. In addition, future investments are necessary for previous investments to keep their worth live.

The general perceptions that when human capital contributes a decisive part in neoclassical and endogenous expansion models. (Mankiw, Romer and Weil, 1992; Rebelo, 1991; Sianesi and Van Reenen, 2003). The sensitive deviation is that, in the foremost group, economic expansion is ultimately gripped by exogenous scientific advancement, together with human capital, finally stop evolution in a neoclassical model in the absence of involvement from external forces. Policy varies can elevate the point of efficiency excluding the long run expansion and growth rate. Endogenous expansion models, on the other hand, require no extra description, used for human capital investment which drives information without diminishing returns. An endless amendment in various policy variables can source a durable and positive change in an economy’s expansion and growth rate.
capital developed in earlier stage of life pressures later on human capital growth and development has great assumption designed fort raining and education procedures and policies. Assume it involves facilitating the procedures of training and education mandatory by an individual in high school will be compulsory, in part, on the level of human capital growth and development accomplished throughout their primary education.

TURNING OF HUMAN CAPITAL INTO AN EFFICIENT ASSETS NECESSARY FOR ECONOMIC DEVELOPMENT

How human capital is arranged to become an efficient assets which are necessary for economic and financial growth. Specifically, a person’s individual development is a critical factor of any profession where they are working, the work performance they commence, the capacity and worth of these actions, and in the end their earnings. Person’s individual development and growth is also added in the direction of organizational output, escalation and earnings towards national economic and financial growth.

An individual’s employment performance is not resolute with his pre-existing expertise and understanding of work. To a certain extent, organisation-intensity aspects like; establishment where they work, job description and design, level of research and development, development of human beings, purposefully importance of human capital within an organization, improvement of investment profile, are also play significant roles. Become conscious about productivity enhancement with the help of very expert workforce is more probably to happen while organizations are more importunate on the exploitation of human capital.

This recommend with the purpose of strategy intended at escalating force of educational and learning accomplishment must be place in a broader framework of economy and industry policies, and more significantly their work practices and skills development at the earliest level where output reimbursement are appreciated.

Although significance of health and educational sectors are very important for the financial and economic expansion and growth of every state, but unfortunately these are still one of the most neglected sectors in Pakistan economy.

SAARC regional assessment of public expenditures in health and education sectors from their gross domestic product, and also with some other health and education indicators; which are presented in Table 2 as under.

<table>
<thead>
<tr>
<th>TABLE: REGIONAL COMPARISON of EDUCATION and HEALTH EXPENDITURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUNTRY</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Bangladesh</td>
</tr>
<tr>
<td>India</td>
</tr>
<tr>
<td>Maldives</td>
</tr>
<tr>
<td>Nepal</td>
</tr>
<tr>
<td>Pakistan</td>
</tr>
<tr>
<td>Sri Lanka</td>
</tr>
</tbody>
</table>


The spending statistics are taken from Human Development Report (HDR) 2007-2008 and the values concerning enrolment, life expectancy and literacy are taken from Human Development Report (HDR) 2009-2010. The government spending on education as a percentage of Gross Domestic Product (GDP) is 2.3% in Pakistan, which is the lowest possible in the SAARC region. The health sector in Pakistan is previously a low precedence area where the government spending as a percentage of Gross Domestic Product (GDP) is unvarying at less than 1%. The existing number is 0.4%
which is as well the least possible amongst the SAARC countries. It is momentous that the adult literacy percentage of Bangladesh is to some extent lesser than Pakistan on the other hand combined gross enrolment percentage is much higher than Pakistan which also point out that the literacy percentage in Bangladesh may be higher than Pakistan in the upcoming years. Percentage of life expectancy at birth is reasonable in Pakistan.

HUMAN CAPITAL BUILDING THROUGH DEVELOPMENT OF LABOUR WORKFORCE

Human capital is powerfully correlated with efficiency and productivity of persons, owners of the company and the country economy as well. Ensuring there are adequate superior level of expertise in the labour force will facilitate us to produce a great worthwhile economy as well as react to the future challenges. The responsibility of human capital in rising yield is particularly significant in the services sector where yield enhancements are mainly reliant on a person’s expertise somewhat enhancements in the course of production. The connection among productivity, skills and innovation has been expressed as a “worthy circle”; with each component absolutely strengthen the other factors. Investment in training, education and learning is only recognizing while it transforms into workplaces using these expertise in intelligent, adaptive and efficient ways. It is persons who boast the skills and acquire the period to train. It is the place of work that must describe these skills out, build upon them and use them to make the improvement and efficiency for the business and the nation. This transfers the focus of labour force development.

LABOUR FORCE DEVELOPMENT CAN BE DEFINED AS

“Those policies and practices which support people to participate effectively in the workforce and to develop and apply skills in a workplace context, where learning translates into positive outcomes for enterprises, the wider community and for individuals throughout their working lives”.

A labour force development approach can be functional and helpful for the industry, economy, training and education providers in general and specific both manners. Skills provide during general education are useful in many professions and industries, are normally developed throughout formal schooling. In contrast, precise training gives the skills essential to work in precise occupations and/or industries.

LITERATURE REVIEW

Lots of studies have been agreed to identify the connection between economic growth and human capital in other countries. These studies suggest that human capital growth indentures with such abilities like education, health facilities, skill development, literacy and knowledge. Furthermore, it is supposed that the portion of human capital growth in country economic growth is much greater than the total of physical capital. A number of significant studies from developed and under developed countries are integrated in this part.

Human capital is broadly renowned as a significant portion of country economic growth and the significance of human capital accretion is absolutely recognized in the current exogenous and endogenous growth theories (Mankiw et al. 1992, Bergheim. 2005 and Howitt. 2005) nevertheless this is still debatable which factors must be precise as human capital. In generally the studies regarding health and/or education linked indicators are engaged as an alternative for human capital.

Human capital is not limited to understanding. Health is the main and focused contributor to
economic development and growth observed in many cross-country models (Bloom and Canning 2000, 2003).

Precise in the development of human capital, health of individuals and life expectancy can causes and effect growth of human capital in a number of ways. As individuals are alive longer, they may possibly keep extra for his/her old age. Life expectancy is able to serve as substitute used for the health status of the entire population, for the reason that turn down in death percentage are connected to falls in mortality. Significant of this type of human capital might not be contributed to technology transfer, in distinction to training and education.

In any case the theoretical importance of knowledge related to human capital, the many facts observed from cross-country studies are extremely assorted. Pungo (1996) open to the elements related to the Mankiw et al. (1992) (MRW) human capital-improved neoclassical prerequisite demonstrates structural breaks, such to facilitate the coefficient on human capital is insignificant taken as a sample of labour copious states and if dominant comments are expelled. A promising rationale for all of these is poor and variable schooling systems in under-developing countries are liable for deprived and low quality. In Pakistan, the major education gap is in basic primary schooling. The variation in English language testing system highlighted the superiority of education in private schools which are 12 times higher than government schools, which is basically create inequity between children from rich and poor families (Das, Pandey and Zajonc, 2006).

State spending in the schooling system is relatively missing in the sense of quality education, which is an additional prospective contributor. Deviation in the usefulness and degree of country spending towards schooling, collectively with the fiscal system, in which citizens paid taxes for it, which is also generate a negative correlation with economic development and growth (Blankenau and Simpson, 2004).

Government expenditure in education sector may decline the private spending in education sector. In the short-term, rising of the percentage of the probable workforce in full time education may decrease the current labour force and likely to lesser per capita output in short run. It’s not surprising that the macroeconomic facts are vague regarding the effects on economic growth and development related to the government spending on education sectors.

Distinctive institution will affect the demand and supply of the human capital. However, large number of researchers observed mostly certain combination of large numbers of countries, and ignoring differences between different institution economy levels. Country time series studies propose a way of declining such heterogeneity (Durlauf, Johnson and Temple, 2004). For this motive the present study estimates and examines time series model of human capital necessity and economic expansion and growth in Pakistan by the period of 1960-2003. As a low income country with the purpose of capitalizing comparatively little amount in human capital growth and development over the last 40 years, Pakistan is generally an unique case for studying the economic development and growth in these perceptive (Husain, Qasim and Sheikh, 2003).

Mincer (1974), majority econometric researches on human capital in Pakistan have involved approximation the earnings functions from micro data. Nasir and Nazli (2001) discover each year of education caries roughly 7% return for private wage earners. One more study by Haroon et al. (2003) estimated that the utmost private gross return 16% is associated with high school education. Their results are also indicating that personal remunerations from primary education turn down in the preceding decade, despite the fact that returns to high school and technical education go up. New studies on rural
Pakistan by Behrman et al. (2008) demonstrate that “social” and “private” rates of return to low worth of “primary schooling” against “no schooling” stood 18.2% and 20.5% individually. They moreover expected that “social” percentage of return to “high-quality” versus “low-quality” primary schooling in rural Pakistan were 13.0%. Regrettably, researches of this type are doubtful to detention all secondary advantages of human capital development for economic expansion and growth, particularly the inducement to technology expansion and execution. Consequently, there is a solid situation for accompanying them through macroeconomic studies of percentage of return, as tried here.

The research paper represent the influence of human capital development on Pakistani economic and financial growth, deliver estimates the social rates of return to human capital in Pakistan, and evaluates the procedure consequences of the conclusions.

Amjad (2005) engrossed on those issues that describe Pakistan’s comparative growth enactment. He observed mainly at the role of variances in the excellence of human capital development and formation. The cross-country realistic outcomes suggested that rise of physical capital and enhancements in the excellence of establishments must substantial conclusions in relationships of accomplishing higher progression percentage but that better-quality of health care and education also have significant forces in economic growth and development.

Akram (2008) tried to evaluate the affiliation between economic growth and development and health status. They detected a two-way connection between developed economic growth and health facilities. Health and additional kinds of human capital raises the per capita Gross Domestic Products (GDP) by enhancing the efficiency of human beings and then certain part of their income is consumed as investment on his personal development which also results in per capita growth.

As the literature exhibited that although excessive effort have been done, which associated to human capital development on the other hand merely a limited studies determined on the importance and necessity of investment in human capital in Pakistan, and distinguish processes has been used for this motive. So this research is proposed to fill out the margins available in the literature.

DATA AND METHODOLOGY

This research is established on the secondary sources of statistics and data. The data and statistics are composed from the period of 1980-1981 to 2010-2011. The figures for this research are taken from World Development Indicators (WDI), State Bank of Pakistan (SBP) and Pakistan Economic Survey (of innumerable years).

To inspect the liaison between economic growth and development along with human capital formation, the itemized model has been examined by using the technique of Ordinary Least Squares (OLS). In this model Gross Domestic Product (GDP) is consider a dependent variable however Education Enrolment Index (ED), Head Count Ratio (HC), Infant Mortality Rate (MORT), Gini Coefficient (GINI), Investment Growth Rate (IGR), Consumer Price Inflation Rate (CPINF) all are independent variables in our specific model. Regression inaccuracies in equations of this model will be confirmed by auto correlation through help of Durbin Watson (DW) statistic test.

VARIABLES USED IN THE STUDY: CONCEPTS

This fragment is earmarked to focus on the measured variables in our examination of human capital development formation. These
variables have been carefully chosen, keeping in vision their comparative standing on theoretical and experiential ground. The selection of variables is steady with the choices through by a number of other examiners as well (Mankiw 1992, Romer 1990, Barro and Lee 2000). The description of endeavoured variables and their theoretical effect are labelled as follows:

**GROSS DOMESTIC PRODUCT (GDP)**

Economic and financial growth of a republic is resolute by growth in the magnitude of the economy of a country. It's an extensive indicator that shows the size of a country economy. Usually, a number of economists measure economic productivity of a republic from side to side its Gross Domestic Product (GDP). We have occupied Gross Domestic Product (GDP) as a dependent variable in this research study.

**EDUCATION ENROLMENT INDEX (ED)**

The human capital proxy that we practice in our research study is “school enrolment index ratio”. It processes the numeral amount of learners are enrolled at a particular grade level. Barro and Lee (2000) and Mankiw (1992) as well used this proxy in their research studies. In this research study the technique used by Barro and Lee (2000) for formation of human capital has been used and we have used “Education Enrolment Index” (ED) as a proxy for Human Capital.

\[
ED = \frac{(5EDt + 8EDt + 10EDt + 16EDt)}{Population}
\]

Whereas:

- **ED** = Education Enrolment Index
- **5EDt** = Enrolment of 5th grade primary education
- **8EDt** = Enrolment of 8th grade middle education
- **10EDt** = Enrolment of 10th grade secondary education
- **16EDt** = Enrolment of 16th grade higher education

**HEAD COUNT RATIO (HC)**

The “head count ratio” is the proportion of the population which earnings is less than the endorsed edge of earning set by the state. “Head count ratio” is a significant element of human capital creation and growth. Poverty level of individuals has a solid influence on human capital creation and additionally on economic development and growth.

**INFANT MORTALITY RATE (MORT)**

The “infant mortality rate” is computed and calculated by assessing entire sum of children dying below a year of age divided by the entire sum of children born in that particular year. It exposed that health variables impact on per capita “Gross Domestic Product” (GDP) confidently despite the fact that per capita “Gross Domestic Product” (GDP), turn positively its influences on health variables is also constructive.

**GINI COEFFICIENT (GINI)**

The “Gini coefficient”indicates the earning unfairness and its value ranges from 0 to 1. A stumpy value of “Gini coefficient”specifies a more identical earning sharing while great value demonstrates inadequate circulation. Unfairness of earning has also a noteworthy impression on human capital creation and development. Unfairness in earning is confidently correlated with the schooling variation and it is adversely correlated with the different stages of schooling.

**INVESTMENT GROWTH RATE (IGR)**

Evaluation and growth models of neoclassical economists pressure on population growth and investment ratio in the regression examination. This theory encourages capital addition as the key source of economic development and growth. In this research we involve investment growth percentage (on GDP basis) in our examination.
CONSUMER PRICE INFLATION RATE (CPINF)

Inflation in Pakistan has been projected like other countries on the basis of yearly percentage change of average consumer price index. Consumer Price Index (CPI) inflation is a sovereign and independent variable of our research study.

MODEL SPECIFICATION

Our specific model, the “Gross Domestic Product” (GDP) is consider to be a dependent variable while Education Enrolment Index (ED), Head Count Ratio (HC), Infant Mortality Rate (MORT), Gini Coefficient (GINI), Investment Growth Rate (IGR), Consumer Price Inflation Rate (CPINF) are sovereign and independent variables. In our econometric model of the designated variables which we applied in this research study is as under:

\[ LGDP = \beta_0 + \beta_1(LED) + \beta_2(HC) + \beta_3(LMORT) + \beta_4(GINI) + \beta_5(IGR) + \beta_6(CPINF) + \varepsilon \]

Whereas:
- \( LGDP \) = Log of Gross Domestic Product
- \( LED \) = Log of Education Enrolment Index
- \( HC \) = Head Count Ratio
- \( LMORT \) = Log of Infant Mortality Rate
- \( GINI \) = Gini Coefficient
- \( IGR \) = Investment Growth Rate
- \( CPINF \) = CPI Inflation
- \( \varepsilon \) = Error Term

RESULTS AND DISCUSSIONS

In this portion we will present the numerical, statistical and econometric figures examination. Descriptive statistics is the discipline of reading the chief quantifiable features of statistics and data used in this research study. They provide simple and straightforward consideration related to the data and its measurements. It is applied for measurable and quantifiable examination of statistical data. Descriptive statistical value of different variables in our specific model is as under.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGDP</td>
<td>13.84</td>
<td>1.54</td>
<td>30</td>
</tr>
<tr>
<td>LED</td>
<td>-2.09</td>
<td>0.21</td>
<td>30</td>
</tr>
<tr>
<td>HC</td>
<td>27.86</td>
<td>5.67</td>
<td>30</td>
</tr>
<tr>
<td>LMORT</td>
<td>4.93</td>
<td>0.14</td>
<td>30</td>
</tr>
<tr>
<td>GINI</td>
<td>19.23</td>
<td>1.99</td>
<td>30</td>
</tr>
<tr>
<td>IGR</td>
<td>19.89</td>
<td>2.21</td>
<td>30</td>
</tr>
<tr>
<td>CPINF</td>
<td>8.98</td>
<td>2.94</td>
<td>30</td>
</tr>
</tbody>
</table>

Note: Completely valuations are conceded via E-views

The table above is the comprehensive descriptive examination which we conceded from the data. Our statistic and data comprises of 30 years of yearly reflection from 1980-1981 to 2009-10. The descriptive data and statistics display that the average of “Gross Domestic Product” (GDP) is 13.84 along with the standard deviation of 1.54. The average “education enrolment index” (ED) is -2.09 along with the standard deviation of 0.21. The average for “head count ratio” (HC) is 27.86 along with the standard deviation of 5.67. The average for “infant mortality rate” (MORT) is 4.93 along with the standard deviation of 0.14. The average for “GINI coefficient index” (GINI) is 19.23 along with the standard deviation of 1.99. The average of “investment growth rate” (IGR) is 19.89 along with the standard deviation of 2.21. The average for “consumer price index inflation” (CPINF) is 8.98 along with the standard deviation of 2.94.

Coefficient Correlation displays the degree of linear connection between two variables. A Correlation Matrix is a table which demonstrates all probable coefficient of correlation amongst a set of variables. “Correlation Matrix” of the variables in our specific model is also provided in the table below.
### TABLE: CORRELATION MATRIX OF THE VARIABLES

<table>
<thead>
<tr>
<th></th>
<th>LGDP</th>
<th>LED</th>
<th>HC</th>
<th>LMORT</th>
<th>GINI</th>
<th>IGR</th>
<th>CPINF</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGDP</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LED</td>
<td>0.93</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC</td>
<td>-0.46</td>
<td>-0.29</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LMORT</td>
<td>-0.79</td>
<td>-0.79</td>
<td>-0.02</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GINI</td>
<td>0.40</td>
<td>0.31</td>
<td>-0.67</td>
<td>-0.16</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IGR</td>
<td>0.22</td>
<td>0.15</td>
<td>-0.62</td>
<td>0.0</td>
<td>0.94</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>CPINF</td>
<td>-0.26</td>
<td>-0.25</td>
<td>0.07</td>
<td>0.06</td>
<td>0.21</td>
<td>0.22</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note: Completely valuations are conceded via E-views.

The fallouts describe that there is durable positive correlation between LGDP to LED. There is feeble positive relationship of LGDP to GINI also with IGR. The table above also exhibits that here is feeble negatively correlated among LGDP to HC also with CPINF. The correlation stuck between LGDP and LMORT is also strongly negative. There is feeble association which is negative among LED to HC and CPINF. There is feeble association but positive among LED to GINI and IGR. There is extraordinary correlation in LED. On the other side there is reasonably durable but negatively correlated relation between LED and LMORT. On this side there is negative but feeble association between HC and LMORT. There is durable but negative relationship among HC to GINI and IGR. There is positive but feeble relationship between HC and CPINF. There is feeble and also negative link between LMORT and GINI. It is equally protuberant that around zero interdependency between LMORT and IGR. There is feeble but positive link between GINI and CPINF. On the other side there is extraordinary high degree of correlation between GINI and IGR. It also shows that there is feeble but positive link of IGR and CPINF.

The consequences of the assessed model are organized in the Table below, which might clarifies that our itemised specific model did extremely well in relationships of F-statistic. The outcomes define that our itemised specific model is highly significant. R2 the “coefficient of determination” clarifies how considerably linear association between the dependent variable along with the independent variables. The numeric value of R2 is 0.98, which clarifies that 98% deviations in the “gross domestic product” (GDP) are clarified by the apprehensive independent variables. The assessment of Durbin Watson (DW) statistical measurement is 1.97 which specifies that there is no difficulty of auto correlation in our itemised specific model.

### TABLE: PARAMETER ESTIMATES of OLS MODEL for FORMATION of HUMAN CAPITAL

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Equation of the Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>24.852</td>
</tr>
<tr>
<td></td>
<td>(9.183)*</td>
</tr>
<tr>
<td>LED - Log of Education</td>
<td>1.319</td>
</tr>
<tr>
<td>Enrolment Index</td>
<td>(3.230)*</td>
</tr>
<tr>
<td>HC - Head Count Ratio</td>
<td>-0.0649</td>
</tr>
<tr>
<td></td>
<td>(-6.559)*</td>
</tr>
<tr>
<td>LMORT - Log of Infant</td>
<td>-2.477</td>
</tr>
<tr>
<td>Mortality Rate</td>
<td>(-5.640)*</td>
</tr>
<tr>
<td>GINI - Gini Coefficient</td>
<td>0.146</td>
</tr>
<tr>
<td></td>
<td>(2.254)**</td>
</tr>
<tr>
<td>IGR - Investment Growth</td>
<td>-0.17</td>
</tr>
<tr>
<td>Rate</td>
<td>(-3.162)*</td>
</tr>
<tr>
<td>CPINF - CPI Inflation</td>
<td>-0.039</td>
</tr>
<tr>
<td>R2 – R Squared</td>
<td>0.98</td>
</tr>
<tr>
<td>Adjusted R2 - Adjusted R Squared</td>
<td>0.98</td>
</tr>
<tr>
<td>DW - Statistic</td>
<td>1.97</td>
</tr>
<tr>
<td>Sample Size</td>
<td>30</td>
</tr>
</tbody>
</table>

(LGDP is Dependent Variable)

**Note:** The t-Statistics in digression has significant at 1% and 5% level are signposted by * and **one-to-one. Completely valuations are conceded via E-views.
Explanation the impact of regression coefficient, we initially gaze at the coefficient of “Log of Education Enrolment Index” (LED). It indicates that positive impact is important between “education enrolment indexes” with “gross domestic product”. It’s also explicates that evolution in “education enrolment index” reasons progression in “gross domestic product” as well. There is a negative and considerable impression which clearly indicates relationship of “Head Count Ratio” to “LGDP”. LMORT on LGDP is also having a negative and considerable impact relation. It’s also shown that nearby 1% variation in “infant mortality rate” will bring negative changes about 2.47% in LGDP. There is another very important and positive relation between GINI on LGDP. Preceding the other side IGR has negative and essential effect on LGDP. CPINF on LGDP is also having negative effect which is very much essential.

**CONCLUSION AND SUGGESTIONS**

This research has ended an effort to deliver the realistic endorsement on the liaison between human capital developments in respect of economic development. The consequences of this research specified one strong relationship among economic growth, along with the education enrolment, CPINF, investment growth, and head count ratio. Education enrolment index (ED) has progressive and important influence towards economic development; at end we simply said one thing if we escalation in education enrolment which encourages economic development.

“Head count ratio” (HC) we normally engaged in representation of poverty, it has adverse connection to economic development. We simply said if poverty increase in the country it’s simply means the economic development process will become indolent. The “GINI coefficient” (GINI) has positive impact on economic development.

IGR has negative relation with economic development of Pakistan which is major conflicting with the theory; the reason which we may conquer is inadequate investments portfolio in Pakistan. Capital Budgeting is in very reduce speed in Pakistan economy it’s also boost shrinkages the new capacity of capital investment goods. Short demand and production of goods additionally dispirit investment in capital investment. Low volume in capital investment generating damaging influence on IGR, in the result of this it’s also damaging economic development. Furthermore, in Pakistan, we observe it’s common in capital intensive expenditures by state those mostly sanctioned for non-productive dedications. It’s also a foremost cause for the destructive effect on capital investment growth proportion in economic development and growth.

After conducting the comprehensive research, certain policy endorsements are itemized;

a) Enhancement in technology and use it with efficiency are key factors, which plays vital role to economic development and growth. Additional consideration towards the innovative expertise, skill and training advancement are needed for human capital.

b) State has a duty to raise new job openings for individuals so that the growing population might progress towards the economic development of the state. Otherwise it’s become a problem in the way of economic growth of the state.

c) Most of the Pakistanis government payments go in the way of deferred payments rather than the expansions and development undertakings.

d) We must manage the inflation because extraordinary or impulsive price rises are witnessed as damaging for economy as whole.
e) Capital investment will essential for the country like Pakistan and its must enhanced for new capability of the capitalist goods. Bigger the demand need full support from the country supply line, which never being possible in long run if we can't invest in capital investment.

f) Government should increase the enrolment ratio at all education levels. Education contributes to economic development through the production of knowledge and skills.

g) Another responsibility of state to escalation the chances for female education in the country. Educated female will improve the child healthiness and it will also lower down the “infant mortality rate”.

h) Earning disparity must be condensed via suitable state macro policies, which are necessary for economic development in the country. Encouraging connotation is “more identical flow of earnings help the country for greater growth of economic development”.

REFERENCES


