



Available Online

Journal of Education and Social Studies

<http://www.scienceimpactpub.com/jess>

ECONOMIC RETURNS TO EDUCATION FOR EMPLOYEES IN PUBLIC AND PRIVATE ORGANIZATIONS

Javeria Sarwar¹ and Jabran Sohail^{1,*}

¹ Institute of Agricultural and Resource Economics, University of Agriculture, Faisalabad, Pakistan

ABSTRACT

Education is considered as the key to success. The development of a nation is based on its skilled manpower. The literacy rate for men is approximately higher than women all over the world. The literacy rate is higher in developed countries as compare to developing countries. It is generally believed and empirically proved that educated people contribute positively to the growth of a nation. The present study estimated the economic returns to education for employees working in public and private organizations. Cross-sectional data were collected through a well-structured questionnaire. Descriptive and OLS techniques were employed to find out the results. The results provide ample evidence in favour of economic returns to education. Therefore, the study concluded that education has a positive and significant impact on the economic returns of employees' earnings. Other socioeconomic variables such as age, occupation, gender, and job satisfaction level also significantly impacted economic returns. It is suggested that government should provide good educational facilities to the people. Consequently, they will contribute to the employee's incomes and would lead to reducing poverty levels.

Keywords: *Economic returns; Education; OLS; Employees; Job satisfaction; Literacy rate.*

This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

Email: jabransohail@gmail.com

© The Author(s) 2020.

INTRODUCTION

Seek knowledge from the cradle to the grave (Holy Prophet Muhammad SAW). The importance of education, without any doubt, has greatly been highlighted by Islam. Through the emergence of the modern enterprise, nations can get more opportunities for development by jobs creation. With the increase in employment levels, educational institutions would increase. Due to the rise in educational institutions, people get a better quality education at their doorsteps. Long-lasting economic performance depends upon the growth of output, study, spending on schooling, and the struggle forces. Education is the proper and true way for shaping all economic indicators in the right direction. An increase in one year of schooling leads towards a 6% increase in per capita income production, but the process of development of the human resource is not very fast (Islam et al., 2007). The growth rate can be improved by an increase in economic returns, life expectancy, primary schooling enrolment, betterment in terms of trade, and less rise in prices (Barro, 1991). The schooling of an individual has a positive and significant impact on the country's economic growth (Benhabib & Spiegel, 1994; Barro & Sala-i-Martin, 1995).

Education being a human capital, plays a major role in economic development. It is the view of economists that states with higher schooling have higher incomes. Since schooling aids in the growth of the economy by generating an efficient labour force. Therefore, education and income are related to each other (Farooq, 2011). Generally, it considers an effective tool to improve the welfare of people around the world. There is a positive relationship between human capital and income (Awan et al., 2011). According to Schultz (1993), there are five ways of developing human capital, by the provision of health facilities that affect the life expectancy, strength, vigor, and vitality of the people, by provision on the job training which enhances the skill of employers, by arranging education at the primary, secondary and higher levels, by study and

extension programmer for the adults and by the provision of adequate migration facilities to families to adjust to changing job opportunities. While on the other side, as the demand for new skills and occupations has increased the earning differences. The overall impact depended on the existence of how broad the labor market was, whether moving across the skill barrier was relatively easy, and in the placement of re-training and redeployment. In general, it was argued that the LPG in India had a deteriorating impact on the labor market regarding the position of the worker, both in terms of job availability and offered wage (Mukherjee, 2007).

For national and global development well educated and skilled manpower is an asset. Pakistan is a developing country and within the country literacy rate is near to 56 percent. There also exist rural and urban differences in Pakistan, where the literacy rate in rural areas is 49 percent which is lower than that of urban areas, which is 74 percent. Gender inequality in access to education also prevails in Pakistan, where the literacy rate for males is higher 81 percent than women, which is 66 percent. Province-wise, Punjab is on the top, index of literacy rate is 61 percent. It is 56 percent in Sindh, 53 percent in Khyber Pakhtunkhwa, and 43 percent in Balochistan (GOP, 2015). Research on economic returns to schooling is highly required in Pakistan. There are many reasons for justification. The relationship between education and productivity can reveal by estimating the economic returns to education. So, economic returns to education are viewed to be a base for the distribution of resources to education in a region (Guifu & Hamori, 2009). This study was designed to estimate the impact of education and other socio-economic variables on the economic returns of male and female employees in district Faisalabad.

Peet et al. (2015) investigated the returns to education in developing countries, evidence from the living standards and measurement survey. The study used 61 nationally indicative household surveys from 25 growing countries between 1985-2012 to approach whether returns to schooling were systematically greater in developing countries and to evaluate whether recent enlargement in approaches to human and physical stock had changed returns. This study found no proof of systematic excess returns in growing countries and evaluated average returns to education in the represented countries Of 7.6 percent. This study was not also found proof of systematic alter in returns over the last 20 years. Most returns were noticeable highly heterogeneous, with small returns in rural regions, greater returns for men and women, and greater returns in the areas of Africa and Latin America than in Asia. Huntington-Klein (2015) made attention to the subjective and projected returns to education in this study. There was outstanding heterogeneity over secondary school students in the salary and employment returns to schooling. Heterogeneity was estimated in this paper by using subjective returns obtained from the information of secondary school juniors and seniors in Washington. The difference over noticeable in projected returns evaluated using observed information was uncorrelated with change in subjective returns obtained by directly interrogating students about their trust. These results denoted that returns evaluated by using observed data were very weak substitute for student trusts.

Courtioux & Lignon (2016) conducted a study in which the returns of higher education in France were estimated. Like human capital proposition, investment in schooling generated two types of returns: employment market returns and wedding market returns. By dynamic microsimulation method, this article suggested decomposition of both effects for France. The financial motivation of enrolling in university-level education is also debated in this article. Results of this study expressed that incentives originated from the wedding market were unimportant for men but for women, these incentives correlated to 1/3 of the returns of university education. Further, the wedding market was played an important role regarding the returns to college-level education. It expanded the risk of having no finance for university education for males and females because the wedding added the query of the companion's career to the query of a single person's career. So, the risks associated with the investment in education remained greater for women. Results of this study provided proof that the decisions of the family could affect the educational choices for females.

Campaniello et al. (2016) conducted a study in which returns to education were estimated in criminal organizations. In this paper, the positive impact of education on legal and illegal activities was estimated. The case of the Italian-American mafia, the longest running criminal organization in the past, was used to estimate these returns. Its most victorious members were efficient businessmen, arranging crimes that needed abilities that might be well informed at school, removing the optimal rent when positioning up a racket, organization, and distribution when positioning up a drug-dealing system. A question was addressed by differentiating mobsters to a collection of samples drawn from the United States, including their nearest neighbors. It was recorded that mobsters had a lower level of schooling than their neighbors. It was found that the mobsters had significant returns to the schooling of 7.5-8.5 %, which was little than their neighbors. Mobsters returns were consistently doubled as huge as a sample of Italian migrants from the whole world.

Russo & Dias (2016) examined the influence of health on returns to education in Brazil. Heckman and nonlinear methods were used, which allowed the thought of the existence of growing returns. Microdata used from National Survey by household sample. The fitness status was calculated by self-assessment of a person. It was evaluated that the rates of returns lessen until the 4th or 5th years of education that was until the finishing primary level schooling when enlarging returns started. The study also investigated that the returns to education were smaller for individuals in deficient health; for needy people with 15 or more years of education, 10-14.5% rate of return was lower for those who were unfit. Salisbury (2016) analyzed a study in which a new data set was used to evaluate private and social returns to education in South Africa. More specifically, it analyzed whether the returns for African and Colored South African had upgraded since the beginning of the 1990 post-apartheid epoch. Throughout that time interval, the returns for Africans and colored were greater than in past decades, but the general remuneration structure still heavily advocated whites. As of 2008, the racially mixed relationship among returns remained, with compensation results for Africans and colored continued to lag behind natural South Africans through more than 20%. Moreover, a huge portion of the wages differentials between 34% and 42% was owing to the labor market's lesser valuation of Africans and colored employees' productive characteristics. Generally, returns in the South African labor market were stable with recent proof on the design of returns in the growing world today, namely that returns for females were greater than for males and that returns to tertiary education were greatest.

Doyle & Skinner (2016) evaluated the education earnings equation using a geographic variation. The study enlarged on the literature on the informal impact of postsecondary schooling on earnings through introducing a plentiful set of site-based measures as apparatus for years of schooling. The study applied six different sets of apparatus based on geographic changes, the existence of a four-year or two-year schooling in the county, reverse log interval to in state two year schoolings, and reverse log interval to all colleges. Results of the study showed that different measures yield varying estimates of the influence of schooling attainment on wages. Utilizing preferred measures of geographic changes, one extra year of postsecondary schooling achievements resulted in a 9.7% enlargement in yearly wages. The study concluded that a huge influence of postsecondary schooling achievements for females and no measurable influence on postsecondary achievements for males.

METHODOLOGY

A sample of 140 respondents was selected by purposive sampling techniques, and data was collected in district Faisalabad Pakistan through the questionnaire. OLS technique was employed to find out the results. The specification of the model is given below as:

$$Y = \beta_0 + \beta_1 Edu + \beta_2 Exp + \beta_3 A + \beta_4 G + \beta_5 JS + \beta_6 OC$$

The functional form of the model is given below

$$\ln Y_i = \alpha X_i + \beta_{Si} + \epsilon_i$$

Where $\ln Y_i$ indicates the natural logarithm of the perceived wages for individuals i ; X_i indicates the vector of personal attributes that may influence wages, namely the age of the respondents selected from the Faisalabad city entered in linear form, gender of the respondents. S_i shows the number of schooling of individuals i and ϵ_i an error term with $E(\epsilon_i) = 0$.

RESULTS AND DISCUSSIONS

The analysis and interpretation of the data are the most imperative step, the results of this study are shown in Table 1, 2 and 3.

Table 1. OLS estimation of earning regression equation for the overall sample.

Variables	Coefficients	Std, Error	p.value
Constant	6.910	.239	.000
Gender	.724	.110	.000
Age	.017	.008	.025
Education (Years)	.082	.012	.000
Occupation	.010	.004	.030
Experience (Years)	-.004	.009	.673
Job Satisfaction	.842	.009	.000
R Square, 0.67. Adjusted R Square, 0.65. F Statistics, 45.795			

Table 2. OLS Estimation of earning regression equation for female subsample.

Variables	Coefficients	Std, Error	p.value
Constant	7.785	.248	.000
Female	-.772	.109	.000
Age	.015	.007	.042
Education (Years)	.076	.012	.000
Occupation	.009	.004	.043
Experience (Years)	-.003	.009	.777
Job Satisfaction	.821	.097	.000
R Square,.681. Adjusted R Square, .666. F Statistics, 46.880			

Table 3. OLS Estimation of earning regression equation for male subsample.

Variables	Coefficients	Std, Error	p.value
Constant	6.785	.148	.000
Male	-.662	.129	.000
Age	.010	.031	.012
Education (Years)	.095	.032	.000
Occupation	.003	.001	.022
Experience (Years)	-.020	.003	.575
Job Satisfaction	.731	.076	.000

R Square,.781. Adjusted R Square, .757. F Statistics, 36.8
--

The coefficient of education level was positive and significant at a 1 percent level of significance; therefore, economic return to education as monthly earnings rise by 82 percent for the overall sample. The coefficient of education for both male and female employees shows that one more year of education increases the economic return as female and male employee's earnings by 76 percent and 95 percent, respectively. Results showed that economic return increase as the education level increases. Therefore, age, education, gender, job satisfaction level, and occupation significantly impact employees' earnings.

CONCLUSIONS

This study concluded that age, education, gender, job satisfaction level, and occupation significantly impact employees' earnings. Human capital is "the knowledge, skill, competencies embodied in individuals that facilitate the creation of personal, social and economic well-being". Human capital refers to education and health generally; human capital considers an effective tool to improve the welfare of people around the world. There is a positive relationship between capital and income. Human capital plays a central role in the development of the country. Human capital development is low in Pakistan, with a low enrollment rate at the primary level, low literacy, poor health facilities, drinking clean water, etc. Due to lack of human capital investment, illiteracy rate, high poverty level, and unemployment increased. For national and global development well educated and skilled manpower is an asset. The literacy rate in a developed nation is very high, whereas in a developing nation is normally low. There are various causes for the rate of low literacy in our country like extreme poverty, high population growth rate, wadera system, minimum allocation of the education budget, lack of schools in rural areas.

REFERENCES

- Awan, M. S., Iqbal, N., & Waqas, M. (2011). The impact of human capital on urban poverty: the case of Sargodha City. *Journal of Sustainable Development*, 4(1), 143.
- Awan, M. S., Iqbal, N., & Muhammad, W. (2011). The impact of human capital on urban poverty: The case of Sargodha city.
- Barro, R. J. (1991). Economic growth in a cross section of countries. *The Quarterly Journal of Economics*, 106(2), 407–443.
- Barro, R. J., & Sala-i-Martin, X. (1995). *Economic Growth* McGraw-Hill. New York.
- Benhabib, J., & Spiegel, M. M. (1994). The role of human capital in economic development evidence from aggregate cross-country data. *Journal of Monetary Economics*, 34(2), 143–173.
- Campaniello, N., Gray, R., & Mastrobuoni, G. (2016). Returns to education in criminal organizations: Did going to college help Michael Corleone? *Economics of Education Review*, 54, 242–258.
- Courtioux, P., & Lignon, V. (2016). A good career or a good marriage: The returns of higher education in France. *Economic Modelling*, 57, 221–237.
- Doyle, W. R., & Skinner, B. T. (2016). Estimating the education-earnings equation using geographic variation. *Economics of Education Review*, 53, 254–267.
- Farooq, M. (2011). The Returns to education for male and female workers in pakistan: a new look at the evidence. *Dialogue* (1819-6462), 6(2).
- GOP. (2015). *Economic Survey of Pakistan 2014-2015*. Finance Division Government of Pakistan Islamabad. Pakistan.
- Guifu, C., & Hamori, S. (2009). Economic returns to schooling in urban China: OLS and the instrumental variables approach. *China Economic Review*, 20(2), 143–152.

- Huntington-Klein, N. (2015). Subjective and projected returns to education. *Journal of Economic Behavior & Organization*, 117, 10–25.
- Islam, T. S., Wadud, M. A., & Islam, Q. B. T. (2007). Relationship between education and GDP growth: A multivariate causality analysis for Bangladesh. *Economics Bulletin*, 3(35), 1–7.
- Mukherjee, D. (2007). Post-reform trends in wage-differentials: a decomposition analysis for India. *Indian Journal of Labour Economics*, 50(4).
- Peet, E. D., Fink, G., & Fawzi, W. (2015). Returns to education in developing countries: Evidence from the living standards and measurement study surveys. *Economics of Education Review*, 49, 69–90.
- Russo, L. X., & Dias, J. (2016). The health influence on returns to education in Brazil: A nonlinear approach. *Economia*, 17(2), 210–220.
- Salisbury, T. (2016). Education and inequality in South Africa: Returns to schooling in the post-apartheid era. *International Journal of Educational Development*, 46, 43–52.
- Schultz, T. W. (1993). The economic importance of human capital in modernization. *Education economics*, 1(1), 13-19.