Journal of Advances and Scholarly Researches in Allied Education

Vol. VII, Issue No. XIII, January-2014, ISSN 2230-7540

HUMAN CAPITAL STATUS IN DEVELOPING ECONOMIES

AN INTERNATIONALLY INDEXED PEER REVIEWED & REFEREED JOURNAL

www.ignited.in

Journal of Advances and Scholarly Researches in Allied Education
Vol. VII, Issue No. XIII, January-2014, ISSN 2230-7540

Human Capital Status in Developing Economies

Dr. Gurinder Jit Singh Bhullar

Head P.G. Department of Economics, Guru Nanak College Moga

Abstract – In this paper analysis has been done to study the human capital status of developing economies. The multiple regression analysis technique was applied to see whether the effect of different factors differs significantly between the countries. The human development index has been used as a proxy for judging the human capital level. Attempt has been made to find the relationship of human development index with per capita income (PPP), gross domestic saving, health expenditure as a percent of GDP, education expenditure as a percent of GDP, labour force as a percent of total population, share of non-agriculture sector as a percent of GDP, percentage of labour force in non-agriculture sector.

----------X----------

INTRODUCTION

Human beings are the real carriers of all activities and development must be centered on enhancing their achievements, freedoms and capabilities. It is the lives they lead that are of intrinsic importance, not the commodities or income that they happen to possess. Living standard cannot be measured solely by the amount of income, commodities or the wealth though they constitute important parameters for the same. A person's income level, for example, does not reveal what expectation of life the person has, whether he or she is presently healthy (or suffering from a disease), is disabled and is capable of moving about freely etc. Even for those features of the living standard where the instrumental significance of private income is likely to be greater, such as adequate nutrition, there is enormous variation in converting income into achieved well-being. Sen (1988)

An initial heavy investment in human resource development is necessary to get a country started on a road to self-sustaining growth. The magnitude of required investment in human resource development for continued growth is itself a function of the level of a country's economic development. There is a high correlation and presumably some causal relation between enrollments in education and a country's level of economic development as expressed by GNP per capita. The balance in any programme of human resource development is as important as the amount of investment in education. The social and political pressures for education are powered by economic motivations and due to this an educational system which fails to prepare persons for available jobs is clearly out of balance and is by any definition inefficient. The proportion of national income devoted to human resource development is likely to rise in all countries that are growing with the increase in quantity of education and thus the need for improvement in the quality becomes imperative. Harbison (1962) the human resources are the ultimate basis of the wealth of nations. The developing countries come across with two major problems: firstly underutilization of the capacities of human beings as indicated by rising unemployment and underemployment in both rural and urban areas, due to high rates of population growth; and secondly the under development of the capacities of human agents for productive use of their energies. Further, study found that there is no serious conflict between maximizing employment opportunities and maximizing national income. The standard of living of a society should not be judged by GNP per capita and the supply of particular goods but by people capabilities in what a person can or cannot do. It is entitlements - the set of alternative commodity bundles that a person can command in society. The relevant capabilities are being free from starvation, hunger, under-nourishment. The expansions of these capabilities implies freedom of choice.

Due to globalization lakhs of people have been facing new situation of trade and work. Technical changes taking place all over the world and the investment done by the foreigner in a particular country has made human developments possible in the best possible ways. The expenses of the media and internet have revolutionized the communication system which is helping human advancement. Global markets are expanding in a fast way in this time. New challenges are being thrown upon by globalization. But these challenges do not put impediments in the expansion of global market. Such challenges make way for better and strong governance so that advantages of global market are not only sustained rather they provide much scope for competition very much required for optimum use of resources and ultimately for the betterment of the people.

In this knowledge era the value of human capital has taken the prime slot. The education system as a whole has been a subject of continuous evaluation and reinforcement. The role of education and training in enhancing the chances of better quality of life, prosperity and peace is being appreciated worldwide. (Ghailani & Khan, 2004).

Development planning is necessary for economic growth that leads to better human lives. Better human lives only can further lead to increased development choices for the people. Again development planning must form the basis for undertaking development programmes and projects and the exercise must be carried out before the start of the programmes. Due weightage should be given to skills over and above the technical and financial viability. The most important aspect of development programmes and projects is not the completion of such activities but the persons who would be actually benefited from such programmes. As such the direction of the programmes should intend to and actually reduce the imbalances in socio-economic sphere. The aim of developmental activities should be targeted to the betterment of people's life and their living standard rather than the production and the cost of production. That is to say that how better can the lives of the people be shaped. To illustrate it further we can take the example of health facilities where the aim should not only be improving health but it should be health for all. Again the other case of housing can be taken where aim should not be improved housing but it should be housing for the needy and the poor (HDR, 1991).

In this paper analysis has been done to study the human capital status of developing countries. The multiple regression analysis technique was applied to see whether the effect of different factors differs significantly between the countries. The human development index has been used as a proxy for judging the human capital level. Attempt has been made to find the relationship of human development index with per capita income (PPP), gross domestic saving, health expenditure as a percent of GDP, education expenditure as a percent of GDP, labour force as a percent of total population, share of non-agriculture sector as a percent of GDP, percentage of labour force in non-agriculture sector.

REVIEW OF LITERATURE

Dhesi (1979) found that there is a definite relationship between technologies used by a society and the pattern of human development. A technically changing society creates new products, new centers of economic activity, requires new skills replacing the old ones. This demands a certain degree of mobility of human resources between regions, sectors as well as skills Shariff and Unni (1999) studied the human development and growth scenario of the South Asian economies to examine the rationale for mass education among the young. Study concluded that to ensure participation and involvement in the education sector, a direct financing and local fiscal contribution of the community at large and of parents in particular was essential. Cervellati and Sunde (2002) provided a unified theory of the transition in income, life expectancy, education and population experienced by the Western world when passing from an environment of economic stagnation to sustained growth. Wages which are determined by productivity and life expectancy are the crucial variables in the individual education decision. The advances in the technological progress, human capital formation and longevity potential reinforce each other. Datt (2002) aimed the improvement in human development index in India vis-a-vis other countries of the world. The study found that the population growth rate has begun to decline and it is estimated that it would be 1.3 percent per annum during 1999-2015. This will release quite a significant proportion of the resources being currently used to support a higher growth rate of population for other areas of development. Ranis (2001)gives the two way relationship between economic growth and human development which suggests that nations may enter either into a virtuous cycle of high growth and large gains in human development or a vicious cycle of low growth and low rates of HD improvement. Ignacio (2003) studied the dynamic relationship between consumptions and human capital investments. The study found that the risk is not the only parameter with respect to investment of human capital for seeking premium on these human capital investments that are risk free under reasonable preference parameters. Chadha (2004) opined that human capital most ostensibly in the form of education would be an inescapable input for ensuring competitive levels of productivity in various sectors and for accelerating the overall face of economic growth of Indian economy. The study underscores that a poor human capital base is the "Achilles' heel" of Indian economyStewart (2010) studied the trends in human development in Europe in the last two decades. The study found that levels of both relative poverty and overall income inequality were on the rise across most of the region.

DATA SOURCES AND METHODOLOGY

The data used in the study were collected from various publications of World Bank, United Nations and World Health Organization that are available in India. Publications like World Development Reports, Human Development reports, World Statistics, UNESCO statistical year books, U.N. Demography Year Books The analysis has been carried out at three points of time viz for the years 1985, 1995 and 2005. The purpose behind this was to study the changes over a long period of time. In order to find the human development level of developing countries econometric approach based on regression is used in the form of following equation.

$HDI_{it} = \square_{1it} + \beta_{11}\ln PCI_{it} + \beta_{12}\ln GDS_{it} + \beta_{13}\ln HE_{it} + \beta_{14}\ln EE_{it} +$

β_{15} ln LFP_{it} + β_{16}ln UP_{it} + β_{17}ln SNA_{it} + β_{18} ln $LFNA_{it}$ + U_{it}

RESULTS AND DISCUSSION

Analysis for the year 1985

The cross country regression result for all the developing countries for the year 1985 are presented in the table 1 The results of the regression analysis as given by equation I shows that 75.3 percent variation in the dependent variable are explained by the set of explanatory variable under study. The coefficient of per capita income (PPP) is positive and significant at one percent level. This means that as the per capita income increases the human capital level increased significantly in the year 1985. The coefficient of percentage of labour force in non-agriculture sector is positive and significant at one percent level of significance. This is due to the fact that as the labour force in non-agriculture sector increases their income increases. The increase in income lead to better standard of living of people and hence increase in human development index which signifies the increase of human capital level. The coefficient of urban population as a percent of total population is negative and significant at five percent level of significance. The coefficient of gross domestic saving, health expenditure as a percent of GDP, labour force as a percent of total population and share of non-agriculture sector as a percent of GDP are positive but non-significant. The coefficient of health expenditure as a percent of GDP is .016. This indicates that if there is 1 percent increase in the health expenditure the human development index will increase by .016 percent.

The analysis has also been done to find the relationship by excluding the variable per capita income. The equation II of the table shows that 68.3 percent variations in the dependent variable are explained by the explanatory variables under consideration. The coefficient of health expenditure as a percent of GDP and share of non-agriculture sector as a percent of GDP are positive and significant at five percent level of significance. The coefficient of percentage of labour force as a percent of total population remained positive and significant at one percent level and that of urban population as a percent of total population is negative and significant at five percent level of significance.

Table – 1

Regression Results for the year 1985

HDI Dependent Variable	Eq I	T-Value	Eq II	T-Value
Per Capita Income PPP	.220	3.979*		
Gross Domestic Saving	.007	.960	.013	1.714
Health Expenditure as a percent of GDP	.011	.277	.076	1.895**
Education Expenditure as a percent of GDP	.016	.375	.005	.107
Labour force as a percent of total population	.074	.731	.021	.182
Urban population as a percent of total population	-.299	-2.243**	-.291	-1.925**
Share of Non Agriculture sector as a percent of GDP	.459	1.110	.993	2.238**
Percentage of Labour Force in Non Agriculture sector	.508	3.527*	.740	4.956*
Constant	-3.726	-5.385	-3.349	
R^2	.787		.721	
$\bar{R}^2$	.753		.683	

Note: * Significant at 1% level of significance
** Significant at 5% level of significance
*** Significant at 10% level of significance

ANALYSIS FOR THE YEAR 1995

The cross country regression results for human capital status for the year 1995 are presented in the table-2. The equation I of the table show that 79.7 percent variations in the dependent variable are given by the set of explanatory variables under study. The coefficient of per capita income (PPP) is found to be positive and significant at one percent level of significance. The coefficient of share of non-agriculture sector as a percent of GDP is positive and significant at five percent level and the coefficient of percentage of labour force in non- agriculture sector is positive and significant at one percent level of significance.

Table – 2

Regression Results for the year 1995:

HDI Dependent Variable	Eq I	T-Value	Eq II	T-Value
Per Capita Income PPP	.162	3.619*		
Gross Domestic Saving	.001	.066	.012	2.021**
Health Expenditure as a percent of GDP	.026	.557	.100	2.112**
Education Expenditure as a percent of GDP	.005	.117	.006	.137
Labour force as a percent of total population	.021	.174	.014	.109
Urban population as a percent of total population	-.249	-1.641***	-.251	-1.490***
Share of Non Agriculture sector as a percent of GDP	1.151	2.811**	1.722	4.107*
Percentage of Labour Force in Non Agriculture sector	.364	3.184*	.519	4.413*
Constant	-4.270	-5.306	-4.443	-4.981
R^2	.825		.780	
$\bar{R}^2$	.797		.750	

Note: * Significant at 1% level of significance
** Significant at 5% level of significance
*** Significant at 10% level of significance

The coefficient of gross domestic saving, health expenditure, education expenditure as a percent of GDP, labour force as a percent of total population are positive but non-significant. The coefficient of labour force as a percent of total population is .021 indicating that if there is one percent increase in the

labour force as a percent of total population the human development index will increase by .021 percent.

The analysis has also been made to find the relationship by excluding the variable per capita income (PPP). The equation II of the table shows that 75 percent variations in the dependent variable are explained by the explanatory variables under study. The coefficient of gross domestic saving and health expenditure as a percent of GDP are positive and significant at five percent level of significance. The coefficients of share of non-agriculture sector as a percent of GDP become positive and significant at one percent level of significance. The coefficient of urban population as a percent of total population remained negative and significant at 10 percent and that of percentage of labour force in non- agriculture sector positively significant at one percent level of significance.

ANALYSIS FOR THE YEAR 2005

The cross country regression results for human capital status for developing countries for the year 2005 are presented in the table 3. The equation I of the table shows that 88.6 percent variations in the dependent variable are explained by the explanatory variables under study. The coefficients of per capita income (PPP) and percentage of labour force as a percent of total population are positive and significant at one percent level of significance. The coefficient of labour force as a percent of total population and coefficient of share of non-agriculture sector as a percent of GDP are positive and significant at five percent level of significance. The coefficient of urban population as a percent of total population is negative and significant at five percent level of significance. The coefficient of gross domestic saving, health expenditure and education expenditure are positive but non-significant.

Analysis has also been made to find the relationship by excluding the variable per capita income. The equation II of the table shows that 83.4 percent variations in the dependent variable are explained by the explanatory variables. The coefficient of health expenditure as a percent of GDP is positive and significant at five percent level of significance. The coefficient of labour force as a percent of total population and share of non-agriculture sector became significant at one percent level of significance.

Table – 3

Regression Results for the year 2005

HDI Dependent Variable	Eq I	T-Value	Eq II	T-Value
Per Capita Income PPP	.139	4.998*		
Gross Domestic Saving	.011	.542	.003	.138
Health Expenditure as a percent of GDP	.034	.920	.090	2.132**
Education Expenditure as a percent of GDP	.019	.679	.037	1.116
Labour force as a percent of total population	.247	2.706**	.379	3.600*
Urban population as a percent of total population	-.235	-2.639**	-.265	-2.472**
Share of Non Agriculture sector as a percent of GDP	.616	2.635**	.880	3.196*
Percentage of Labour Force in Non Agriculture sector	.458	4.307*	.777	7.580*
Constant	-4.177	-8.645	-4.641	-8.098
R^2	.902		.853	
$\overline{R}^2$	.886		.834	

Note: * Significant at 1% level of significance

** Significant at 5% level of significance

*** Significant at 10% level of significanc

The study found that over a period from 1985 to 2005 the value of $\overline{R}^2$ increased to 88.6 percent in 2005 from 75.3 in 1985. The increase in $\overline{R}^2$ indicates that the effects of explanatory variable on the dependent variable have increased. The coefficient of per capita income and coefficient of percentage of labour force in non-agriculture sector and coefficient share of non-agriculture sector as a percent of GDP remained positively significant throughout the study period. The coefficient of urban population as a percent of total population remained negatively significant throughout the study period. The coefficient of gross domestic saving was positive but non-significant in 1985. It became significant in 1995 when the variable per capita income was excluded from the list.

The coefficient of health expenditure was positively significant throughout the period of study when the variable per capita was excluded. The coefficient of education expenditure as a percent of GDP remained positive but non-significant during the period of study. The coefficient of labour force as a percent of total population was positive but non-significant in 1985 and 1995 but became significant in the year 2005.

REFERENCES

- Cervellati Matteo and Uwe Sunde (2002), *Human Capital Formation, Life Expectancy and The Process of Economic Development*, IZA Discussion Paper No. 585
- Chadha G.K. (2004), "Human Capital Base of the Indian Labour Market: Identifying Worry Spots". *The Indian Journal of Labour Economics*, 47(1), 3-38.
- Datt Ruddar (2002), "Human Development; India and World Context", *The Indian Journal of Labour Economics*, 45(2).

- Dhesi Autar S. (1979), *Human Capital Formation and its Utilization*, Sterling Publishes Pvt. Ltd., New Delhi.
- Ghailani Juma and Sami A. Khan (2004), "Quality of Secondary Education and Labour Market Requirement", *Journal of Services Research*, 4(1), 127-138.
- Harbison, F.H. (1962), Human Resources in Development Planning in Modernizing Economics, *International Labour Review*, 85(5), 2-23.
- Ignacio Palacios-Huerta (2003), *"Risk and Market Frictions as Determinants of the Human Capital Premium"*, Department of Economics; Brown University http://works.bepress.com
- ILO, *Year Book of Labour Statistics*, Geneva: Various Issues.
- Ranis Gustav, Frances Stewart (2001), “Gross and Human Development: Comparative Latin American Experience”, *The Developing Economies*, 39(4), 333-365.
- Sen, A. (1988), *"The Concept of Development"*, in Hollis Chenery and T.N. Srinivasan (eds.), *Handbook of Development Economics*, Amsterdaim: North Holland.
- Shariff, A. and J. Unni (1999), "Enabling Development through Education Implications of South Asia", *Labour and Development*, 5(1) (Dec.), 31-53.
- Stewart, Kitty (2010), Human Development in Europe, http//d.repec.org/n?u=RePEc:hdr:papers:hdrp-2010-07 & r=hrm.
- United Nations Development Programme (UNDP), *Human Development Reports*, New York, Oxford University Press: Various Issues.
- *United Nations Educational Scientific and Cultural Organization (UNESCO)*, Statistical Year Book, Paris: Various Issues.