

Relationship between GDP and Human Development Indices in India

Akbar Khodabakhshi

Abstract—Human Development Index is a composite index to measure the development of human resources in each country and four indicators of life expectancy, income per capita, the average number of years studying and hope to the number of years of education will be formed. Countries, according to the Department of Human Development Index rates countries with high human development, countries with high human development, and human development countries with medium and low human development countries are divided. Development Goal is creating conditions where people can live long and healthy life and knowledge benefit. Human Resource Development Index as one of the important indicators of economic development for each country and is considered an effective role in economic development. Importance of human development index led put review Indian economy. Trend changes every three human resource development index during the 30-year period from 1980 to 2010 of the goals of this research. In this article we will consider relationship between GDP and three indicators of human resources in India. In addition, we will evaluate relationship and mutual effects of each of the three indicators of human resource development in the Indian economy using the latest (2010) formula provided by the United Nations. GDP or income as the dependent variable and three indicators long life, health and education as independent variables in the research model have been told.

Index Terms—Gross Domestic Product (GDP), Human Development Index (HDI),

I. INTRODUCTION

“Human development is concerned with what I take to be the basic development idea: namely, advancing the richness of human life, rather than the richness of the economy in which human beings live, which is only a part of it.”

The human development indices provide an assessment of country achievements in different areas of human development. Human Development Index is a composite index to gauge success in each country, based on three criteria of human development: a long and healthy life, access to knowledge and wisdom and good living. People are real wealth of every nation. The purpose of human development is creating conditions in which its people can live a long life and a healthy and productive benefit. Countries based on the human development index are divided to countries with very high human development, countries with high human development and human development countries with medium and low human development countries. In the last UN report, India is

located in countries with medium human development. In this paper three indices of human development in India are investigating the process and changes in these indices compared to India's GDP per capita over the period 2005-2010 will check.

II. HISTORY OF HUMAN DEVELOPMENT INDEX

The human development concept was developed by economist Mahbub ul Haq. At the World Bank in the 1970s, and later as minister of finance in his own country, Pakistan, Dr. Haq argued that existing measures of human progress failed to account for the true purpose of development to improve people's lives. In particular, he believed that the commonly used measure of Gross Domestic Product failed to adequately measure well-being. Working with Amartya Sen and other gifted economists, in 1990 Dr. Haq published the first *Human Development Report*, which had been commissioned by the United Nations Development Program. The human development model emphasizes the everyday experience of ordinary people, including the economic, social, legal, psychological, cultural, environmental and political processes. The first Human Development Index was presented in 1990. It has been an annual feature of every Human Development Report ever since, ranking virtually every country in the world. The HD Index has become one of the most widely used indices of well-being and has succeeded in broadening the measurement and discussion of well-being beyond the important but nevertheless narrow confines of income. What's more, the index has encouraged countries to invest in data collection on their citizens' well-being and spurred many countries to try to improve their rankings on the index.

III. DEFINITIONS

Life expectancy at birth The number of years a newborn infant would live if prevailing patterns of age specific mortality rates at the time of birth were to stay the same throughout the child's life. Life expectancy index one of the three indices on which the human development index is built. GDP index is one of the three indices of human development index. It is based on GDP per capita (in PPP terms in US dollars).GDP per capita (PPP US\$) GDP (in PPP terms in US dollars) divided by midyear population. GDP (gross domestic product) is sum of the value added by all resident producers in the economy plus any product taxes (less subsidies). Education index is one of the three indices of human development index. It is based on the adult literacy rate and the combined GER for primary, secondary and tertiary education. Education levels

Categorized as primary, secondary, post-secondary and tertiary in accordance with the International Standard Classification of Education. Primary education provides a sound basic education in reading, writing and mathematics along with an elementary understanding of other subjects. Human development classifications; All countries included in the HDI are classified into one of three clusters of achievement in human development: high human development (with an HDI of 0.800 or above), medium human development (HDI of 0.500–0.799) and low human development (HDI of less than 0.500).

IV. HUMAN DEVELOPMENT

A process of enlarging people’s freedoms and opportunities and improving their well-being, enabling them to lead long, healthy lives; to have access to knowledge; to enjoy a decent standard of living; and to participate in the decisions that affect them.

V. TO ANALYZE THE EFFECTIVE OF THE INDICES

Table 1 shows human development indicators for the years 2005 -2010 in India. Each of the three indicators per capita gross domestic production, life expectancy and education in separate graphs were examined and the process changes any of the specified periods 2010-2005. Each of these three indices of growth and changes have different slopes and curves for each of the three indices are different. Life expectancy index produce more per capita GDP growth shows a significant also trend of education indicator shows that compared with other indices growth is better. Of course the overall growth of the human development index has been more under the influence of per capita gross domestic production and process of education index and changes Life expectancy has had little impact.

TABLE I: INDIAN HUMAN DEVELOPMENT INDICES (2005-2010)

| 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | |
|-------|-------|-------|-------|-------|-------|-----------------------------------|
| 3,354 | 3,106 | 2,946 | 2,815 | 2,616 | 2,419 | GDP capita (billion\$) |
| 64.4 | 64 | 63.7 | 63.4 | 63 | 62.7 | life expectancy (year) |
| 68.3 | 67.5 | 66.8 | 66 | 65.2 | 64.5 | Adult literacy (education) |
| 0.519 | 0.512 | 0.506 | 0.5 | 0.491 | 0.482 | HDI |

TABLE II: INDIAN HUMAN DEVELOPMENT INDICES (2005-2010)

| 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | |
|-------|-------|-------|-------|-------|------|-----------------------------------|
| .08 | .054 | .047 | .076 | .081 | 0 | GDP capita (billion\$) |
| .0063 | .0047 | .0047 | .0063 | .0053 | 0 | life expectancy (year) |
| .011 | .01 | .012 | .012 | .01 | 0 | Adult literacy (education) |
| .014 | .012 | .012 | .018 | .017 | 0 | HDI |

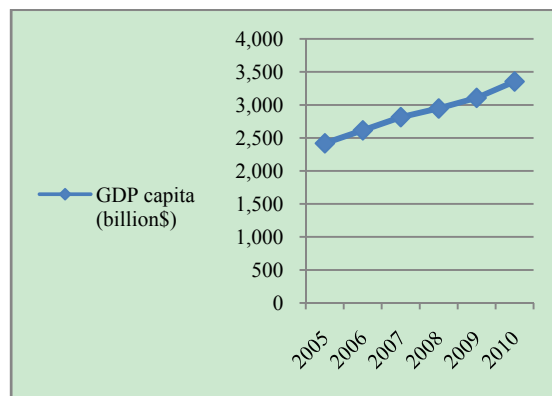


Fig 1: India DGP per capita Index during the (2005-2010)

Table 1 shows GDP per capita production trends in India. This index has been 2419 billion dollars in 2005 and increased to 3345 billion dollars in 2010. Highest growth index in 2006, obtained from the 8 percent. The least growth in 2006 is that growth against 4.7 percent. This indicator in 2010 grows above 8 percent in 2006. From 2006 to 2009 the trend of change was the index decline. Detail of changes during the period given in Table 2 and Chart 1 graphs the trend of change in this indicator is drawn.

VI. LIFE EXPECTANCY

This index shows a less growth than of per capita GDP production index during the five years. At the beginning of the period from 62.7 increased to 64.4 which in 2010. Growth of this indicator in Figure 2, the gentle slope of the index shows. What is extracted from this chart below is the growth of this index to per capita gross national production index, it seems there is no effective relation between two indicators and impact indicators per capita gross domestic product little impact on life expectancy has had. Perhaps one reason for the weak relationship between these two indicators is unequal distribution of income and class differences.

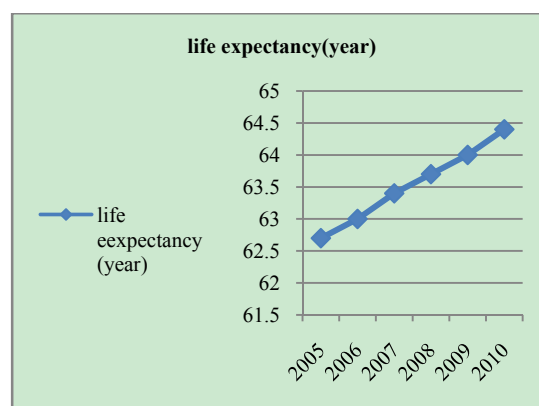


Fig 2: India Life Expectancy Index during the period (2005-2010)

VII. EDUCATION INDEX

Education in Human Development Index of India will show- on so that this index from 64.5 in 2005 grew 68.3 in 2010. this indicator has had a good growth in the rest period of years. Chart 3 training carrier index growths from 2005

to 2010 shows. As a result production index per capita GDP has been more effect in this indicator. Table 1 values of this index for the period shows a table of values based on number 3 chart trend growth conditions better than other indices draws.

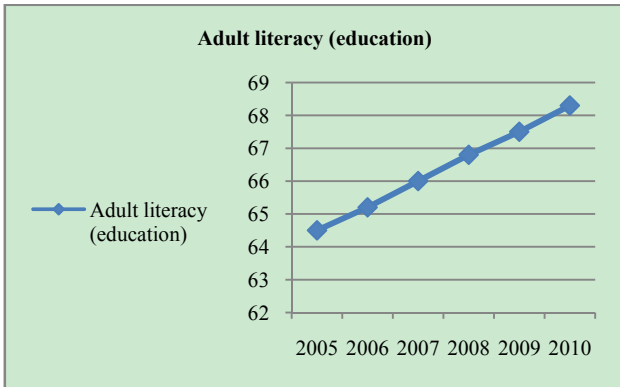


Fig 3: India Education Index during the period (2005-2010)

VIII. THE EFFECT ON ALL THREE INDICATORS OF HUMAN DEVELOPMENT INDICATORS IN INDIA

According to the results in the above tables we describe the Human Development Index in India during the five-year period. According to the values obtained for India's development indicators in Table 1, we can say that education index has had greatest impact on domestic growth Human Development Index after that GDP per capita index has had more on growth Human Development Index. Although life expectancy trends show an increase, but has had lower impact than GDP per capita production index on human development index, figure 4 shows Human Development Index growth in India. The index as a measure of general level of people's lives in developing countries. This index at the beginning of the period was .482 and at the end of the period is reached to .519. Greatest increase in human development indicators in India over the five-year period to 2007 is concerned with the .018 growth than other years. Less growth is relevant to growth in 2008 and 2009 whit.012. Table 2 shows annual growth rate each of the three human development indicators and trends separately and also changes in the Human Development Index of five-year period.

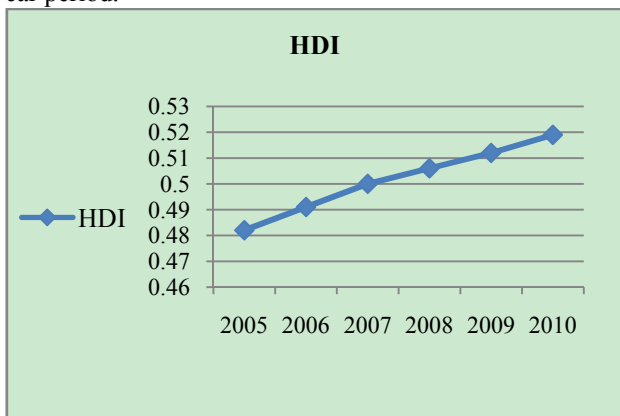


Fig IV: India Human Development Index during the 2005-2010

IX. CONCLUSION

Founding in this article shows that per capita gross domestic production index in the Indian economy has had good growth but the impact on other indicators of human development index is very low even on some indicators such as life expectancy has been ineffective. The results show that the Human Development Index India is growing along with the downside. Growth index had a decreasing trend from the beginning period of 2009 and in its least .012, but reached the year 2010 growth index has found the situation upside 0.014 is reached. India obtained 119 in world ranking human development index.

ACKNOWLEDGEMENT

I would like to acknowledge everyone who helped me in doing this paper. I am very thankful to everyone who all supported me, for I have completed my paper effectively. I am equally grateful to my guide Dr. Dangat Nilish who guided me in different matters regarding the topic. I would like to thank my son Mr Erfan who helped me a lot in doing this paper.

REFERENCES

- [1] 2010 Human Development Report: Asian countries lead development progress over 40 years.
- [2] Human Development Report 1997, Human Development to Eradicate Poverty, New York.
- [3] Towards Human Development with Equity, National Human Development Report for India.
- [4] Human Development Report 2006, Beyond Scarcity: Power, Poverty and the Global Water Crisis. New York.
- [5] Human Development Report 2007/2008. Fighting climate change: Human solidarity in a divided world. New York.
- [6] Human Development Research Paper 2009/13 Migration and Human Development in India, Priya Deshingkar and Shaheen Akter.
- [7] Private Schooling in India: A New Educational Landscape Sonalde Desai Amaresh Dubey, Reeve Vanneman, Rukmini Banerji, Working Paper No. 11
- [8] Azimi Hossein, "trend of the not development countries", Srinivasan, T.N., 2002, China and India Growth and Poverty, mimeo, Yale University
- [9] Reserve Bank of India, India's Global Integration and The Role of the IT Sector,
- [10] India's country profile, World Bank web site, December 2004



Akbar Khodabakhshi is born on April 21, 1967 in Toyserkan, Iran. His educational background: is economics. Dr Khodabakhshi is now working as lecture in department of economics, Pune University, Pune, India. He has 20 years academic experiences as lecture educational manager.