

A COMPARATIVE ANALYSIS OF INDIAN STATES IN TERMS OF THEIR HUMAN DEVELOPMENT INDEX AND NET STATE DOMESTIC PRODUCT

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Abstract: Economic growth provides resources for the development of commodities which attributes to human development and human development lead to increase in national income hence economic growth. For many years economic growth is the center around, which policies are made keeping in mind that higher provision of goods and services leads to human development or better standard of living. Undoubtedly more economic growth is needed but the income should be efficiently allocated between priorities of commodities for human development.

This paper studies the relationship between them, and major factors of human development which provides for greater economic growth with respect to Indian states Kerala, Haryana, Punjab, and Mumbai. The paper uses empirical evidence to draw a conclusion about inequality between the two factors education and health in providing economic growth and between the states with higher HDI but lower per capita income.

Index Terms: Component, Economic Growth, Provision, Inequality, Per capita income

I. INTRODUCTION

Human development is a broader concept which says the need of enlarging people's choice. The most Imp ones are to lead long and healthy life, to be educated and to enjoy a decent standard of living. Additional choices include freedom to make political choices, Human rights and self-respect. Human development index is a composite index to measure development of human resources in each country on the basis of life expectancy, school enrollment rate, and healthy lifestyle. Human development is advancement in richness of human life and not the richness of the economy.

There have been several studies about human capital and economic growth and its importance in increasing the competitiveness of the economy with respect to other.

However there is said to be a tradeoff between human development indices like providing education for all, increasing education provision for tertiary sector leads to unemployment if there are not enough means of employment, or between providing higher education to already educated or to provide primary education.

Economic growth is said to be the goal for all the policies made in India for past two decades. It has been sustaining higher level of GDP and the per capita income have said to be rising ever since. However, even though Indian economy has faced double digit growth and improved in many terms from famine, drought, poor sanitation to better literacy rates, electrification of most of the villages, better health care facilities. It still ranks 130 on Human development index report. Where we have states like kerala with literacy rate of 93.91% we have Bihar with literacy rate of 63.82%. The inequality between states and distribution of public expenditure in India is one of the main reasons for this lagged growth in terms of human development. Being a labour intensive agrarian economy evidences from empirical research says that some level of inequality was needed for overall growth and development. It represented a quadratic relationship between Economic growth and inequality. This paper aims to study the difference in the trends of Growth of Economy and the development of its people in the Indian states through empirical analysis and literature review. The main objective is to analyse the difference in Human development index and their net state domestic product.

II. LITERATURE REVIEW

Wherever Alejandro Ramirez, Frances Stewart (2000) This paper talks about economic growth and its development in terms of the human capital through a cross country analysis in the period (1990-92) Through evidence on both macro and micro level it further illuminates these relationships. At micro level, Increased income is associated with education level, health and nutrition showed greater effect on productivity of labour. From macro perspective emphasizes on health as well as learning and R&D and education as growth theories endogenize the process. The existences of these chains give rise to vicious and virtuous cycles development with good or bad performance on HD and economic growth reinforcing each other over time.

E. Colantonio, R. Mariannacci, N. Mattooscio (2010) This paper captures interaction of lifestyle and literacy, and economic development in African countries. Using the representative map it divided the countries into group, to assess if the countries belong to same group. The paper selects six indicators for three variables including GDP per capita and growth rate, Life expectancy, health expenditure, Primary completion rate, pupil teacher ratio. The paper concludes with stating high correlation between the three

indicators- education health and economic development also the countries with higher education and health related indicators showed higher economic development compared to those with lower education and health related factors.

Véronique Gille(2015) This paper studies the tradeoff between focusing on already educated in a country or diminishing the illiteracy rate. It faces the question of Should countries focus on more equal distribution of HD or unequal distribution. The paper analyse the data of 29 states with respect to their per capita income and expenditure on the development indicators. Using measures of distribution of education- Gini coefficient of human capital and theill Index. According to the gini coefficient the correlation between level of educations mean and equality index of edu. came out to be not perfect. The second objective of the paper is to explore the channels that drive this relationship. The paper concluded with the inference that the quality of education is inversely related to percapita income and this is absolutey true for rich states.

Kolauwolle Ogundari, Tittus Awokuse(2018) They considers measures lifestyle and literacy. It analysed a panel data covering 35 countries.Main objective of the studyis to examine independently the effect of each HD indicator on economic growth in relation to sub Saharan countries. The study takes three measures of education(enrollment rate of primury, enrollment rate of secondary and tertiary, average years of schooling of adult population and govt. expd. on education) and life expectancy as a measure for health. The analysis of regression of these variables on growth of the economy measured in GDP shows that measures of health and education have statistically significant effect. The estimated coefficient for early schooling and secondary schooling enrollment and average years of schooling shows statistically significant coefficient. However effects of both tertiary and expenditure on education are not significant but the measure of health have a significant impact on growth of economy even larger than the measures of education. This might be because of the quality of education not being good.

Fabian Thiell(2016) He talks about the effect of inequality on economic growth and the Requirement for a broader development and prosperity measure. The effect of net income inequality on Human development index is measured through OLS estimation and regression. The dependant variable is taken to be HDI(life expectancy, literacy rate, gross enrollment rate), explanatory variables taken are build on gini coefficient and controlled variables are investment, govt consumption, openness inflation urbanization.According to the descriptive statistics the evidence were found for a negative overall bivariate correlation between inequality and human development. Through OIS estimation study found out different short run impacts of inequality. The study concludes that the effect of inequality can be different for different measures of HDI. For overall HDI the effect seems to be more positive for developing countries than developed countries. It states that inequality can have a positive impact on developing countries if prevailing inequality is low but negative effect when prevailing inequality is high. This may be due to the quadratic relationship between inequality and development.

Ayona Bhattacharjee Jong Kook Shin Chetan Subramanian Shailender Swaminathan (2017)

The Paper examines the relative share of public health and private health expenditures on income inequality. Through a model of growth in which longevity is calculated by both pvt. and public health expd. and human capital is the engine of growth. Increased investment in health, reduces mortality, raises return to education and affects income inequality. The study using variable for investment uses vaccination data for 76 regions in India links it with region specific expd. data. The study concludes that increasing the relative share of pvt. sources of health care provision is related with an increase in expenditure inequality.

III. GAPS IN EARLIER STUDIES

Although too many literatures are available on the two measures we are studying. Almost all the papers studies the effect of economics growth on human development but in a more general view. India on other hand have followed a different path of expansion it moved from agriculture sector to service sector directly. There have been major inequality in Indian economy between its states and the nation as whole. This study aims on including inequality component in its study of Growth of Economy and the development of its people.

DISCUSSION AND CONCLUSION

This section evaluates the difference between the growth rates of state domestic product and human development indicators.

Source: Central statistical organization

| Gross State Domestic Product | | | | |
|------------------------------|-----------|-----------|-----------|-----------|
| | 2017-2016 | 2016-2015 | 2015-2014 | 2014-2013 |
| PUNJAB | 6.80 | 5.74 | 4.23 | 6.60 |
| BIHAR | 11.30 | 5.80 | 3.60 | 5.00 |
| DELHI | 8.60 | 10.50 | 9.20 | 7.20 |
| MAHARASHTRA | 10.00 | 7.60 | 5.40 | 6.90 |

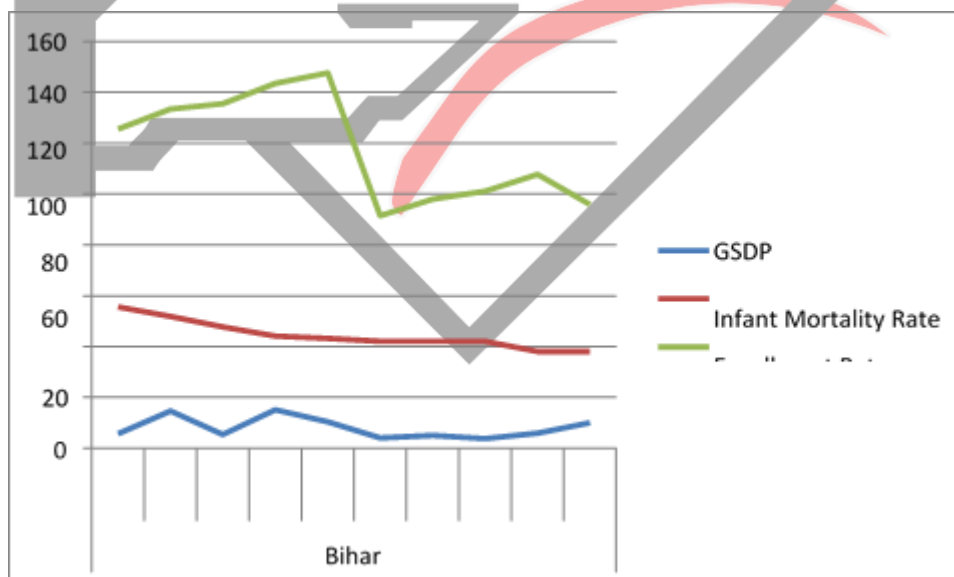
Source: NITI Aayog

| Infant Mortality Rate(per 1000 births) | | | | |
|--|-----------|-----------|-----------|-----------|
| | 2017-2016 | 2016-2015 | 2015-2014 | 2014-2013 |
| PUNJAB | 21 | 23 | 24 | 26 |
| BIHAR | 38 | 42 | 42 | 42 |
| DELHI | 18 | 18 | 20 | 24 |
| MAHARASHTRA | 19 | 21 | 22 | 24 |

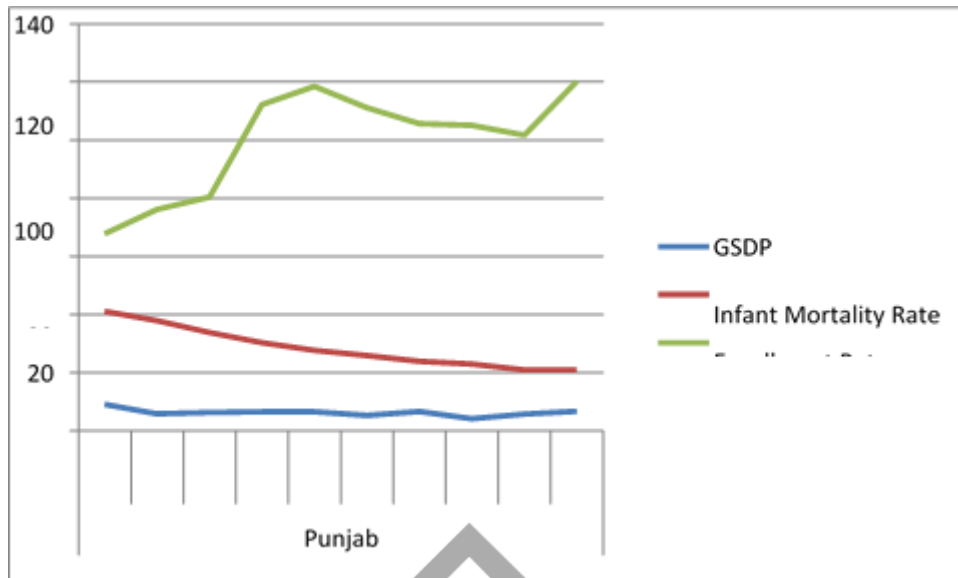
| Enrollment Rate | | | | |
|--------------------|-----------|-----------|-----------|-----------|
| | 2017-2016 | 2016-2015 | 2015-2014 | 2014-2013 |
| PUNJAB | 83.16 | 84.10 | 85.74 | 75.72 |
| BIHAR | 93.80 | 93.76 | 93.77 | 91.66 |
| DELHI | 93.78 | 93.36 | 93.16 | 92.3 |
| MAHARASHTRA | 85.79 | 85.79 | 87.0 | 86.42 |

The table above shows the indicators of human development and state wise domestic product growth rate at constant prices. From the table it can be seen that even though economic growth has increased largely there is no significant difference in human development indicators like in the case of bihar growth rate of gross domestic product is

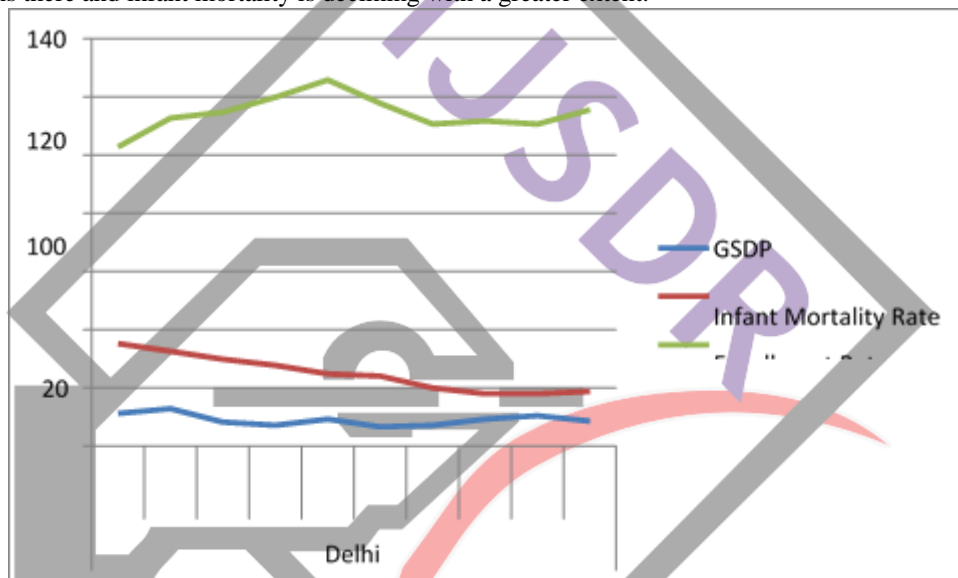
11.30 in the year 2017-2016 but the school enrollment rate have not increased even by half that growth rate. This may be due to the policy structure used in bihar. Even after the lowest literacy rate compared to other states bihar budgeting structure spends least on education. Gross Domestic product state wise is calculate on constant prices of 2011- 2012 state wise of the four bihar contributes highest this is because it is highly service oriented in terms of agriculture. Agriculture accounts for 23% and services accounts for 73% of the states. This boom in service sector is the reason behind this high growth in its GSDP. According the study of Wade M cole there have been a greater effect on income from agriculture sector if the literacy rate is higher or improved. Hence we see that there are states with higher per capita income but lower human development index and we find that inequality is one of the major reasons for this disparity. There have been a rich literature available for the relationship between human development and economic growth but none caters to the need to adjust inequality in the states which is one of the reasons that there exists the disparity in Growth of Economy and the development of its people growth. Through our study we realized that even between human development indices there exists a significant difference, it was found that expenditure on health care leads to a greater effect on economic growth than education expenditure in INDIA



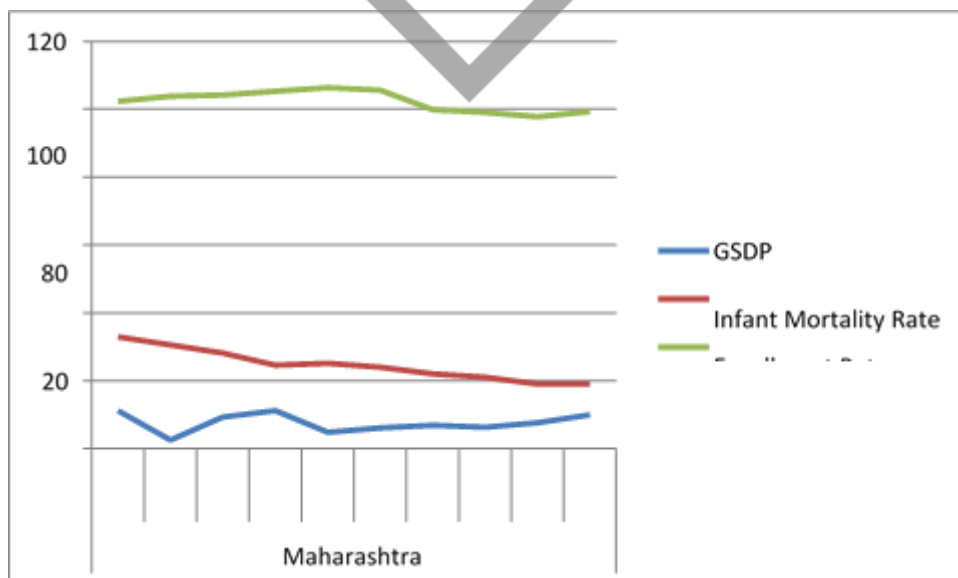
As we can see in Bihar, when GSDP falls there is a greater fall in enrollment rate but a lesser decline in infant mortality rate this can be explained because a greater increase in GSDP goes to increase in health care infrastructure and then to education expenses. However in case of Bihar education expenses is next to negligible as per the policy trends.



However in case of Punjab even if GSDP is increasing at a decreasing rate, enrollment rate is increasing at a greater pace because of the policy implications there and infant mortality is declining with a greater extent.



As we can see in case of Delhi GSDP is the lowest in comparison to Punjab and Bihar but the Enrollment rate is highest and infant mortality rate fell with huge margin because of the state policies giving huge part of its GSDP to Human development indices.



Similar to other three states Maharashtra follows same trend but in case of GSDP it has improved since 2012 since then infant mortality is declining at increasing rate and enrollment ratio increasing.

KEY LEARNINGS

Through this research I was able to find that there exists a two way relationship between human development and economic growth. Even if the humans are beneficiaries they are the means of production as well. For any economy to do well it requires to improve its human capital.

There have been instances where even if the economic growth is increasing it is not leading to increasing in human development indicators that was because of the inequality in that particular state it was clear from the research that interstate inequality are higher than the inequality between states. This is the reason why some states are able to do better than the other.

I was able to learn that between two major indicators for human development education and health, health plays a major role in uplifting economic growth also, that in countries with low income and agrarian structure some inequality is necessary for overall development.

Research Limitation:

The finding of the study was purely dependent on the study of other research papers. The study is restricted to only four states Punjab, Delhi Maharashtra and Bihar and may not apply findings and suggestion to other areas.

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