Chapter – II

Review of Literature

2.1 Literature on Growth Empirics
2.2 Literature on Human Development
2.3 Studies on Causal Links
2.4 Summarisation of Existing Literature
Chapter II
Review of Literature

The present study intends to correlate economic performance and human development in Indian sub-national context. Review of existing literature, therefore, needs to cover three distinct but interrelated issues: record of income-generation and growth estimates of Indian states for the past few decades; estimates of capability expansion across the states for different periods; and finally, the two way links between economic achievements and HD in global and national perspective.

2.1 Literature on Growth Empirics

There is a rich literature analyzing growth experience of Indian state in the last few decades. Most of these researches have a common objective of examining so-called convergence theorem which postulates that when growth rate of an economy accelerates, initially some regions with better resources and infrastructure grow faster than others. However, with the passage of time the law of diminishing returns applies and growth rates across region converge in the long run [Barro (1991); Barro and Sala-i-Martin (1995)]. Several attempts have so far been made to examine the possibility of convergence across Indian States.

Two early studies of Dholakia (1994) and Cashin and Sahay (1996) observed the tendency of convergence of long-run economic growth rates for Indian states. Aiyar (2001) studies interstate growth differentials and the evidences pointing to a widening of per capita income gaps. The lack of convergence across Indian states is partly determined by the differences in literacy and private investment rates. For him, education and investment helped immensely to reduce cross-state income divergence.

A number of studies have opposed these findings of interstate income convergence. The preliminary study of Margit and Mitra (1996) observes that Indian states show a trend of divergence in terms of per capita income. Ghosh et al. (1998) test the hypothesis of absolute convergence for 26 states for a period from 1960-61 to 1994-
Review of Literature

95. They found that the dispersion of per capita state domestic product declined marginally during 1960s and 1970s, however, increased steadily after 1981-82 – thereby indicating absolute divergence. Nagaraj et al. (1998) examine the issue of convergence and long-run growth trends. They use fixed effects estimation, but do not address the issue of parameter heterogeneity. Rao et al. (1999) found that per capita income trends across Indian states show a tendency to diverge as growth and initial level of income are positively associated. This phenomenon has received further momentum in post reform era of 1990s. Dasgupta et al. (2000) confirm this tendency of divergence during the period 1960-95 so far as per capita income is concerned, but of convergence in shares of different sectors in state domestic product. Kurian (2000) reports widening regional disparities across the states and a clear dichotomy between the forward and backward states. The forward group of states consists of Andhra Pradesh, Gujarat, Haryana, Karnataka, Kerala, Maharashtra, Punjab and Tamil Nadu while backward group of states consists of Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and West Bengal. The forward states are not only better off in per capita income levels – they have better infrastructure, higher resource flows and even brighter social and demographic indicators. From slightly different angle Ahluwalia (2000) points out that not all richer states (e.g. Punjab and Haryana) got richer relative to poorer states. In contrast, two poorer states Rajasthan and Madhya Pradesh performed comparatively better in the post-reform decade of 1990s. Using panel data technique Das (2002) verifies the convergence hypothesis for Indian states via factor pricing (wages in agricultural sector) rather than per capita Net State Domestic Product (NSDP). The 14 major states of India are classified in the study into three categories viz. high, middle and low income group states. The panel estimates of convergence are computed for each category of states. All the categories of states show indication of convergence, however, the convergence rate is highest in the low income group of states, followed by middle and high income groups. Steady state values for low and middle income states are found to be negative, indicating that in a steady state the low and middle income states grow at a lower rate than the national average.
Emphasizing on growth empirics of Indian major states rather taking part into the debate of convergence, Chaudhuri (2000) and Krishna (2004) focus on the issues like growth variability and volatility in Indian states over last four decades: from 1960s to 1990s. Chaudhuri (2000) traces the overall economic growth experience of 19 states and asserts that there exists a great divide between Southern and Western states on the one side and the Eastern and Northern ones on the other. Krishna (2004) measures volatility of growth performance of 14 major states. The study uses the coefficient of variation of year-to-year growth rates of a state as a measure of volatility. The results indicate that the most volatile states in the country are Orissa, Rajasthan, Gujarat and Uttar Pradesh while least volatile states are Punjab, Maharashtra and Kerala.

In an illustrated frame of convergence theorem Trivedi (2003) examines the evidence for regional convergence or catch-up in levels and growth rates of per capita income among 16 major states between 1960 and 1992. The results establish that no sign of unconditional convergence in growth rates occurs, however, tentatively conditional convergence is evident which suggests that small group of states are pulling away from the rest of the distribution, causing an incipient second peak.

Bhattacharya and Sakthivel (2004) attempt to answer the question whether and how regional disparity has widened in the post-reform period. Their results indicate that while growth rate of GDP has improved only marginally during 1990s regional disparity in the State Domestic Product (SDP) has widened much more drastically. Backward states, on average, do not show significant sign of convergence in terms of growth rates. Moreover, population also grows at faster rates in backward states.

Purfield (2006) investigates the variation of growth and economic performance across Indian states over a period of 30 years. Among five stylized facts about their performance the dominating ones are that the gap between income levels across the states has widened significantly and that the states with poor economic performances have been less effective in reducing poverty, in generating private jobs etc.

Baddeley et al. (2006) examine regional disparities in Indian economic performance during 1970-97. The preliminary analysis shows that, in absolute terms,
Review of Literature

initially poorer states grew at slower rates than initially wealthier ones, and that there is also increasing dispersion of income levels across Indian states. However, econometric analysis, based on the investigations of the possibility of club convergence and conditional convergence, does not find evidence of the former. Their suggestion in this regard is that some of the factors are associated with the latter. The study indicates that the economic policy reforms in 1991 significantly intensified growth differentials between states.

Bandyopadhyay (2006) documents the stylized facts of twin-peaked dynamics over the period 1965-1997. Her empirical model of dynamically evolving distributions shows that EG across the state has polarized into two income convergence clubs: one at 50 per cent of the national whiles the other at 125 per cent of the national average. The later half of the 1960s show some tendencies of convergence, which are eventually found to dissipate in the 1970s, 1980s and 1990s.

Wu (2008) examines EG and regional disparity of two Asian giants – China and India for the last two decades. The study finds clear evidence of divergence across the regions of both the countries. The important finding of our relevance warns that present level of regional disparity is more severe in China, however, deteriorating more rapidly in India. Along with variations in infrastructure development and urbanization, human resource development plays a crucial role in affecting regional disparity in recent years in India.

Several studies in recent days undertake careful analysis of the sources and changing pattern of EG at national level. Basu and Maertem (2007) present an overview of the pattern of macroeconomic performances in Indian economy since independence. They express their concerns over inadequate infrastructure, labour and bankruptcy regulations, level of corruptions in governance. Moreover, erratic and low growth in agriculture, rising inequality between states; between and within rural and urban areas in the post-reform period are serious issues that need to be addressed immediately to sustain the present level of EG in India.
Bosworth et al. (2007) documents the economic performances of India using the growth accounting framework that produces estimates of the contribution of labour, capital, education and Total Factor Productivity (TFP) separately for the three sectors of agriculture, industry and service as well as for the economy as a whole. They pointed out that relatively small difference between the rates of growth of capital and labour in the past made growth accounting results for India relatively insensitive to the choice of factor share parameters.

While providing an up-to-date projection of India’s potential EG, Oura (2007) draws an illustrative framework of standard growth accounting for India. Under this framework the components of growth including factor share, TFP, physical and human capital accumulations are critically discussed. He views that productivity gains and investment in medium-term could be volatile, but determined reforms could sustain strong productivity growth in India.

Rakshit (2007) raises several serious questions on India’s recent Services Revolution. Drawing evidences from developing countries he urges that revealed comparative advantage of services does not imply that primary and secondary sectors should have a least role in the development process. Moreover, labour absorption in services remained very low in the era of high growth. He suggests for efficient allocation of resources across sectors for a cost effective way of meeting the optimal menu of domestic absorptions.

2.2 Literature on Human Development

After the publication of UNDP’s first HDR in 1990 several attempts have been made to estimate Human Development Indices in India’s sub-national levels. Interestingly, as the formulation of constructing HDI has undergone many changes over the years, empirical studies on India’s national and sub national levels reflect the application of these modifications. In some cases suggestions are made to modify the existing formulation for a better perception.

Review of Literature

their estimates were based on the development indicators of expectancy of life at birth, literacy rate and per capita SDP.

Shah et al. (1993) constructed two sets of HD indices for different periods covering 16 major states. The first index was computed on the basis of real per capita SDP, life expectancy and literacy rate for the years: 1960-61, 1970-71, 1980-81 and 1986-87. The second set of index advanced the educational attainment by combining literacy with average years of schooling. This index was computed for the census years of 1960-61, 1970-71 and 1980-81. The goal posts of development indicators, used to compute both sets of indices, were 1960-61 values as minimum and the targets for each indicator to be achieved by 2010 as maximum.

Pal and Pant (1993) argued that in case of developing countries achievements in poverty alleviation must be taken as an explicit social goal and accordingly they modified the composite index introducing the percentage of people living above the poverty line as an additional indicator. Their computation of indices did not use the maximum values attained by developed countries instead, the concept of dividing by the range between maximum and minimum values was done away with. These modifications help to identify the least developed states by sharply reducing their index value relative to their value using HDR (1990) methodology.

Indrayan et al. (1999) computed HD indices for India and her 16 major states for three years – each a decade apart – applying HDR (1995) method. Their study was precisely aimed at computing indices for major states of India and the nation as a whole, which were strictly comparable to the global values of HDI, and also to obtain a trend of HDI values for three decades: 1971, 1981 and 1991.

Planning Commission (2002) ranks all Indian federal units according to their level of HD captured by the composite index – HDI for 1981, 1991 and 2001. The level and ranks of HD obtained by Indian States and Union Territories have become a permanent basis of reference in all national and even in international studies. Departing significantly from the conventional UNDP methodology it is a unique effort to formulate HDI with a conscious and realistic view which incorporates a number of other information to capture
Chapter – II

individual’s real freedom in three attainments. The most important one is the indicator of economic attainment – inflation and inequality adjusted per capita consumption expenditure in place of conventional per capita income. No doubt, the former is definitely a better indicator in Indian context to capture individual’s command over resources. There is no denying that the vast literature with substantial state level statistics provided in this volume has emerged as a milestone in the analysis of HD.

Employing a number of inequality measures Noorbakhsh (2003) examines the regional disparities in HDI for major Indian states. The primary aim of the study is to find out whether the states show any tendency of convergence or diverge further. Key finding of the study suggests that serious lack of infrastructure in the backward states causes the evidence of divergence rather than convergence.

Chatterjee (2005) criticizes UNDP prescribed HDI formulation on the ground that it ignores the extent of inequality that exists in attainments over the population and proposes an alternative index of human development (AIHD) which takes both general level as well as extent of inequality of the distribution of all three attainments into account. He defines his AIHD as the simple average of the uptilt indices of three characters: longevity, level of education and income. This makes the index sensitive to changes in general level and inequality in respect of each of the constituent characters.

The computation of alternative index of human development for rural and urban sectors of a number of selected states (Kerala, Maharashtra, Tamil Nadu, Uttar Pradesh and West Bengal) and India as a whole exhibits some interesting observations. It is seen that the score and ordering in terms of uptilt are not always same as that in terms of general level. For example, in health attainment (longevity) West Bengal scores better than Tamil Nadu in terms of general level, however, scores lower in terms of uptilt level; indicating that although West Bengal, on average, has a higher level of longevity, it also has more inequality than Tamil Nadu. Likewise, in terms of economic attainment (monthly per capita consumption expenditure) both Maharashtra and Tamil Nadu score over Kerala, but in uptilt level Kerala scores over both Maharashtra and Tamil Nadu indicating a more egalitarian distribution of monthly per capita consumption expenditure in case of Kerala.
2.3 Studies on Causal Links

Previous researches on the two-way links between EG and HD have focused mainly on how they are associated and how public policies play a crucial role to translate economic progress into HD. However, the literature that examines the contribution of HD in furthering EG is surprisingly limited. Here, we review the evidences from previous researches on the subject.

The links and causality between HD and EG has been of crucial importance in UNDP literature. A systematic documentation of the role of EG in the enhancement of HD was found in the 7th HDR which drew a new dimension in categorizing the quality of growth and contributed immensely to set a holistic view on growth performance of any nation. HDR (1996) recognizes that HD and EG are closely connected. There are evidences which establish that EG alone may not be able to benefit everyone of the society. However, for long-run sustainable welfare of the people a meaningful and uninterrupted EG has been inevitable – a most important means in this regard.

‘There are striking contrasts in today’s relationship between human development and per capita income. .... Short-term advances in human development are possible – but they will not be sustainable without further growth. Conversely, economic growth is not sustainable without human development’

(HDR, 1996: 5)

The significance of public expenditure choices for improving HD can be traced into HDR (1996: 71) from the comparison between Kenya and Malawi. It was documented that almost same per cent of GDP was spent by the governments of these two nations during 1980s. However, higher social allocation ratio and priority ratio in Kenya witnessed a significantly higher proportion of GDP to enter directly to HD improvement function.

The formal documentation of the two-way relationship between EG and HD was presented by Ramirez et al. (1998). They examine the significance of the relationship, for the chains as a whole and for particular links in them, with the help of cross-country statistics. The framework was advanced by Ranis and Stewart (2000) and Boozer et al. (2003). Using data from 69 developing countries Ranis and Stewart (2005) extend the analysis for the period from 1960 to 2001.
In parallel efforts, Mazumder (1995 & 2000), scrutinized the causal relationship between human well-being and economic prosperity. Human well-being in this framework is captured by the core indicators like life expectancy at birth, adult literacy rate and infant mortality rate while economic achievements by per capita real gross product. Key findings in Mazumder (2000) reveal that the relation varies significantly with different income groups.

Several empirical researches have been conducted in this regard. Few of them can be highlighted: Anand and Ravallion (1993) view development indicators or social outcomes as aggregate of individual capabilities and find that Gross National Product (GNP) and life expectancy are significantly and positively correlated. The relationship is predominantly mediated through (i) direct rise of the income of the poor and (ii) the effect of growth on public spending – GNP per se explains almost nothing.

Aturupane et al. (1994) observe from their empirical work that EG is negatively related to infant mortality rate, however, can explain hardly 28 per cent of the infant mortality variance.

Taking three income decomposed health aggregates – life expectancy, infant mortality and perinatal mortality, Bidani and Ravallion (1995) find that overall per capita health spending has a positive effect on life expectancy at birth and infant mortality rate of the poor only. Further, increased basic schooling increases average life expectancy of the nation through its effects on the life expectancy of the poor. However, in case of prenatal mortality the per capita public spending affects both and non-poor.

Chakraborty (1997) criticizes the findings of earlier scholars as they suffer seriously from methodological errors and suggests the usage of non-parametric approaches to re-examine the relationship. Her empirical findings suggest that dependency of life expectancy on income is tethered to time and space. Hence, income explains life expectancy only below a certain range and that range is moving up over time. But there are some outliers – below that line life expectancies are unaffected by incomes. She concludes with the note that effectiveness of public action depends on the coverage of public services rather than on the public expenditures. Well-targeted public
policies are often successful to improve the living condition of the poor in short-run, however, growth-based strategies are necessary in the long-run.

White (1999) presents a path-breaking graph to summarise the on-going debate on this issue between UNDP and World Bank and concludes while some policies are win-win, others are not; given the knowledge on which policy brings about what outcome, not much can be said about the effectiveness of each. According to him, the policies advocated by the World Bank and IMF are not always for ‘broad-based’ or ‘pro-poor’ growth.

Boozer et al. (2003) explore the dual relationship between EG and HD. They urge that economic growth is just a means of HD while HD reinforces economic growth.

Drawing attention on a series of studies in human capital theory, basic needs as well as welfare approach, Ranis and Stewart (2005) view that in most cases EG and HD run parallel. Tracing two alternative chains from their previous contributions such as Ranis et al. (2000) and Ranis and Stewart (2000) they outline two chains: from EG to HD (Chain-A) and from HD to EG (Chain-B). For them, most of the developing countries are within the vicious cycle mode – below average HD and EG and few in the other realms – lopsided realities where growth and HD are not coherent. The countries with lopsided development experiences, according to them, tend to fall over time into either a vicious or virtuous cycle. Their findings suggest strongly that neither lopsided situation is sustainable over periods. Both types refer to unstable equilibriums. Decent HD with low expansion of economic opportunities can cause serious fiscal constraints which is likely to create balance of payment crisis while economic growth first strategy can reach limits of domestic supply of skilled labour and political instability.

Turning to Welfare Approach, Berry (2005) attempts to establish the relationship between economic progress and human welfare. Highlighting different setbacks to achieve a positive association between the two, he argues that causes of failure for EG to provide proportional poverty reduction and those of per capita income growth to provide higher satisfaction/happiness vary substantially within societies. Relative income and employment stability has been stressed to establish the links. Citing the examples of Latin
American countries, he opines that worsening income distribution over periods in growth and even, in no growth situations is most prominent cause of failure in this regard.

The new development paradigm claims on the other hand that HD is not only an end-product of the development process – it reinforces growth. However, the existing stock of empirical evidences in UNDP literature, leading the achievements in HD to EG is comparatively less articulated. Theoretical as well as empirical findings of this can be traced into the findings under the purview of new growth theory, human capital/human resource development literature.

Lucas (1988 & 1990) view that higher the level of education of workforce, the higher the overall productivity of capital. This happens because more educated are more likely to innovate which improves overall productivity. Studies of Psacharopolous (1994), Behrman (1995) and Strauss and Thomas (1995) indicate that additional years of education of workers increase their earnings while the rate of return of educational attainment vary significantly on the level and quality of education.

Under the purview of endogenous growth theory there are several studies that recognize a clear association between the indicators of economic and human/social development. Studies of 1990s document the high association between the educational attainment of labour force and TFP. According to Romar (1994), education plays a key role in contributing R&D and via interactive learning which in turn promote growth of output and TFP. Gylfason (1999: 101-105) establishes several high correlations on health, education, income distribution, and per capita income.

In recent endogenous growth model, Schaper (2003) finds that investment in education is able to enhance EG and income equality, depending upon the way it is financed. At first sight education policy of a government can make sense in the long-run – a period of at least 10-20 years. However, at second sight education policy leads to an intergenerational redistribution of utility. Studies reveal that improved health and nutrition affect directly on labour productivity – especially in poor economies. Cornia and Stewart (1995) observe that calorie intake of labour force determines the productivity of both farm and non-farm sectors.
Muysken et al. (2003) investigate optimal health expenditure and consumption by adding a health accumulation function to the Cass-Koopmans optimal-growth model. Their finding suggests that poor countries with bad health condition should allocate more resources to overcome this deficiency. A healthy population may contribute more to growth than a fast-growing capital stock. Physical capital and quality of labour are complements rather than substitutes. The quality of labour force depends on their health condition. Economies will only develop successfully if both inputs meet high standards. Bloom et al. (2004) confirm that at the aggregate level also, health has shown to be an important input in economic growth.

India’s position in the above framework is often reflected in the cross-country studies.

".....India – remains in the weak links quadrant with low human development and low growth during the 1960s and 1970s. It moves to lopsided development in 1980-92 as growth accelerates while progress in human development remains slow....."

(HDR, 1996: 81)

Ramirez et al. (1998) find Indian performance during 1960’s and 1970’s in vicious cycle category. However, in 1990’s India moved to the EG-lopsided group. Almost same views have been expressed about India by Ranis and Stewart (2000) and Boozer et al. (2003). Ranis and Stewart (2005) point out categorically that India remained in vicious cycle for first two decades, however, her movement toward EG-lopsided quadrant during 1980’s received a reversal in 1990’s.

In national level empirical studies on causality between EG and HD attempts are made in both ways. Few scholars find that EG determines the level of HD, however, others argue for reverse causality.

Dholakia (1985: 112-118) tested both the hypotheses of neoclassical school: a higher human capital formation would lead to higher growth of the TFP in a region and of human capital approach: human capital base of a region plays an important role in determining the growth of output and TFP using data from 15 major states for the period 1961-71. However, Indian data could not support any of these hypotheses even at 10 per cent level of significance.
Geeta Rani (1995) finds that economic progress in India is one of the important factors that determine the level of HD. Zaidi and Salam (1998) report a high positive correlation between NSDP per capita and enrolment in higher education. Foster and Rosenzweig (1996) focus attention on the relation between education levels and EG in rural India during ‘Green Revolution’. They concentrate mainly on the agricultural transformation in that period and show how initial education levels translated into subsequent EG through new opportunities, created by technical change. Nosbusch (1999) uses school enrollment rates in a test of Solow-type model augmented with human capital.

Duraisamy (2000) provides estimates of the return to education in India by gender, age cohort and location for the period up to 1993-94; and evaluates the changes in returns over a period from 1983 to 1994 using a large national level household survey data. The result shows that the returns to education increases up to the secondary level and declines thereafter. There is evidence of substantial gender and rural-urban differences in the returns to schooling. The returns to women’s education for primary and middle levels have declined while those for secondary and college levels have increased during the decade 1983-1994.

Pradhan and Abraham (2002) investigate the role of HD policy on EG, taking 17 major states of India into account for the period 1980-97. Their results confirm that the level of HD in a state is significantly determined by the HD policies, pursued by the state governments, and that EG depends upon the HD policy. Government spending for education is critical for economic prosperity; however, per capita health expenditure does possess any significant growth impact in their study.

Dholakia (2003) finds that HD indicators positively influence income with a lag of about eight years, whereas, income per capita affects the other within two years. Therefore, he argues that the planners in India should not be unduly concerned about regional imbalance in human and economic development. Economic growth itself is potential enough to address the issue of disparities in income and HD speedily.
Review of Literature

Using Indian mortality statistics World Bank (2004) documents that both household living standards and national income levels have a positive effect on the reduction of infant (under age 1) mortality. This result is for Indian infant mortality in five years preceding 1998-99.

Gupta and Mitra (2004) investigate the possible links between EG, poverty and health, using panel data for 15 major states covering a period from early 1970s to late 1990s. Their results indicate that though growth tends to reduce poverty, significant improvements in health status are also necessary for poverty to decrease. The study explores a two-way relationship between growth and health status: better health condition of the people enhances economic growth by improving productivity, and higher growth allows better human capital formation.

In a unique effort Ghosh and Pal (2004) examine the effects of initial inequality (in consumption expenditure, state-level development expenditure etc) on subsequent EG across the states of India. They include 16 major states of India and cover the period from 1960 to 1994. The empirical analysis is based on a multiple regression which applies both econometric tools of single cross-sectional estimates and panel-data estimates. In contrast to the results of earlier studies in this field, they find a strong and negative association between inequality and growth of output – especially in case of rural inequality. In addition, the indicator of inter-sectoral inequality seems to be more important in explaining sectoral growth of output.

In other attempt Duraisamy and Mahal (2005) examine the same relationship between the rate of EG, health indicators and poverty levels of 14 major Indian states for the period from 1970-71 to 2000-01. They document a strong association between income growth and health indicators: with the increase in income life expectancy increases significantly, and infant mortality falls sharply. However, poverty level and income growth, on average, are inversely related.

In another attempt, Bhalotra (2006) arrives at the result that unconditional growth elasticity of under-5 mortality in India is about -0.7 which means that a 10 per cent increase in per capita income is associated with a 7 per cent reduction in mortality. This
result corresponds to the under-5 mortality statistics of 14 major Indian states for a period from 1970 to 1994.

Trivedi (2006) studies the relation between income levels and levels of educational capital in Indian states. The key findings is that the stock of educational capital, proxied by the secondary school enrollment rate, has a significant positive impact on steady-state level of per capita income; and also on attendant growth rates. Other interesting set of findings is that both male and female educational capitals are positively related to the steady-state incomes; or that gender-gaps in education reduce long-run incomes.

Aggregating about 15 socio-economic and 13 governance related variables for 16 states of India, Basu (2004) constructs economic well-being index and good governance index respectively. The interaction between the two indices suggest that governance measures, and policy variables are crucial to explain differential level of development performances across states during 1980s and 1990s. The same author in a recent attempt, Basu (2007) develops a new measure of development what he calls development quality index (DQI). This composite index is constructed applying multivariate statistical technique of principal component analysis. Performances of 16 Indian states are scrutinized under this frame between the periods of 1980-84 and 2000-04. Appealing features revealed under this framework are that Kerala has outperformed the rest of Indian states. States of Punjab, Tamil Nadu, Maharashtra and Gujarat performed quite well; however, Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh and Orissa are consistently lagging behind in DQI.

Deviating significantly from the earlier strand of Kurian (2000), Kurian (2007) expresses serious concern on the widening economic social disparities across the regions, genders and social groups in India. To achieve an inclusive growth the issues of these imbalances need to be addressed.

Drawing data mainly from Planning Commission (2002) for 15 major states covering a period from 1980-81 to 2000-01, Ghosh (2006) found strong evidence of regional convergence in HD despite significant divergence in real per capita income. This
Review of Literature

indicates that the poor states have failed considerably to catch-up in terms of income, however, have shown a tendency to converge in HD. The study classifies (15 included) states on the basis of their performances on HD and EG for the years 1981, 1991 and 2001. Four states namely, Gujarat, Haryana, Maharashtra and Punjab have been in virtuous cycle category while seven states namely, Andhra Pradesh, Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh are in vicious category. Other four states included in the study are in the row of lopsided realities.

2.4 Summarisation of Existing Literature

The literature survey, presented above, shows how recent economic research has been shifting its focus on the issues that people have reasons to value. The analytical framework of growth and human development differentials across nations or across regions within a nation has received serious attention. The new growth theories discovered the role of capital accumulation; technological progress as being responsible for growth differentials. The role of human capital and physical infrastructure were put into place to explain the growth process as well. However, the advent of human development paradigm in early 1990s raises questions on quality of growth. Economic prosperity of an economy should promote the quality of life of the people, at least in the long run. This is viewed as an essential ingredient for the sustenance of growth. Hence, the link between the economic performance and human development is extremely important for the mutual backup of both events. The studies on Indian states on this particular issue are not only limited in number, attempts have hardly been made to correlate them directly. To bridge up the inadequacy in the existing literature an attempt has been under taken in the present study where the links between the economy and human development across Indian states are empirically evaluated.