Can technology explain growth disparity among the Indian States?

By

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I

The analysis towards economic growth changed with the seminal works of Solow (1956) in general and that of endogenous models led by Romer (1986), Lucas (1988), Aghion and Howitt (1992), Grossman and Helpman (1991), Barro (1996), Howitt (2000) in particular. These theories helped economies to analyse the determinants of growth and strategize growth accordingly. Technological activities which promote innovations change the pace of product and process development and hence are at the core of economic growth. Knowledge and technology are reshaping the growth and competitiveness of the countries. As a result, the last two decades observes an unprecedented increase in technology and technology related activities throughout the world.

India is also not an exception to this and accordingly knowledge and technology which lead to innovative activities are given due importance. However, India is a federation of states and the perception towards knowledge and technology in the growth process is different for different Indian states. The states which have identified factors responsible for growth are successful in differentiating themselves from other states in terms of growth trajectory.

In India, we can observe broadly two different groups of states pursuing policies towards knowledge and technology development. One group of states are vigorously investing in different activities for increasing industrial and other developmental activities and hence, competitiveness of the state These are also the states which have been successful in attracting FDI and hence the growth process[2]. These states are investing substantially in technology related activities as well. On the other hand, there are other states which have either not realized the importance of knowledge and technology or are slow in implementing policies towards growth and development process. The concentration of industries including high technology industries is substantially high in the former group of states as well.

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[2] Growth and development of the Indian economy in the last decade was made possible largely by the opening up of the economy to foreign investments. After the reforms of 1991, foreign capital inflows have played an important role in the growth and development of states like Maharashtra, Tamil Nadu, Gujarat, Karnataka, Andhra Pradesh, etc.

Research work on disparity of income among the states of India (Ahluwalia, 2000; Krishna, 2004; Bhattacharya and Sakthivel, 2004; Nayyar, 2008; Singh and Oortuk, 2015) shows that growth disparity increased over the years and many factors are responsible for this growth disparity among the states of India and a single factor cannot be outlined to explain the disparity. However, new growth theories highlight the importance of knowledge and technology in the growth process of the countries. *As such, the role of technology in the growth process, on the contrary, responsible for the disparity among the Indian states is an important issue to be discussed. This paper posits to examine growth disparity among the Indian states and the role of technology in explaining this growth disparity among the Indian states.* In order to seek answer to these issues, the paper is organised as follows. The following section briefly discusses the literatures on determinants of growth disparity and convergence of income among the states of India. Section three presents scenario of growth among the states of different regions with respect to the national average. Cross tabulation of R&D and other relevant variables for the states of India are shown in the fourth section. Section five discusses and interprets the quantitative results in terms of panel analysis. This section presents methodology as well. Conclusion is presented in the final section.

II

A number of studies were undertaken to study the convergence of growth rates among the Indian states including determinants of growth rates and regional disparity among the Indian states. Nirvikar Singh and Orcan Oortuk (2015) with the help of panel data examined the relationship between structural change and economic growth of the Indian states. The study concludes that structural change is important in explaining the growth of the Indian economy from 2000 to 2006. Astha Agarwalla et. al. (2011) examines regional disparity and convergence among the Indian states for the period 1980-2006. The study concludes that there are wide variations in economic performances of states and the differences have increased over time. Similar study on the basis of social and economic indicators was done by N J Kurien (2000) as well. The paper finds that there are considerable disparities in socio-economic development across the Indian states and the quality of governance influences the speed of socio-economic progress of the states. The pattern and determinants of economic growth in Indian states was examined with the help of literature by K L Krishna (2004). Krishna found that growth in the different states was characterized by instability and volatility, and disparities among the states measured by coefficient of variation

increased over time. A comparison of regional growth and disparity in India between pre and post reform period was examined by B B Bhattacharya and S. Sakthivel (2004) also. The study finds that growth rate of GDP increased marginally in the post reform decade but regional disparity widened. There is an inverse relationship between population growth and growth of the state domestic product. Gaurav Nayyar (2008) also examined convergence of growth rates among the major states of India and found that states are not converging to identical levels of per capita income in the steady state. In fact, there is a dispersion of per capita incomes across the states over time and this is mainly because of disparities in the levels of private and public investment and an insignificant equalising impact of centre-state government transfers. Ahluwalia (2000) also examined disparity among the Indian states and concludes that difference in performance across states is enormous and state specific socio-economic including institutional factors are more important in explaining this disparity. A different study was made by Vadlamannati (2011) who examined the competition for investment among the states of India. The foregoing review highlights that many factors are responsible for difference in growth performances among the states of India and no specific factor can be identified for this disparity. However, none of the studies specifically focussed on the role of knowledge and technology in explaining the growth disparity among the Indian states.

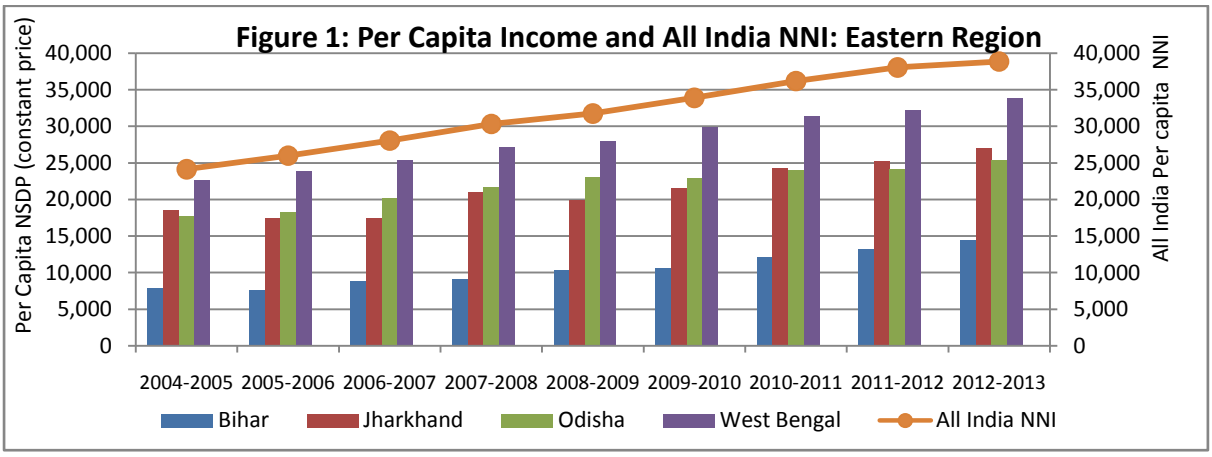
III

The growth performance of India during the last one and half decades is impressive but this is not evenly distributed among the different states of India. Although India is a federation of states nevertheless there is a great variation among these states in terms of social and economic performance. The disparity among the different states of India can be explained on the basis of different socio economic indicators. Growth literature examined the performance of the countries either in terms of the growth rate of GDP or per capita GDP. The disparity and convergence among the states of India, following Solow and the methodology used by Islam, is explained mainly in terms of the growth of the per capita SDP.

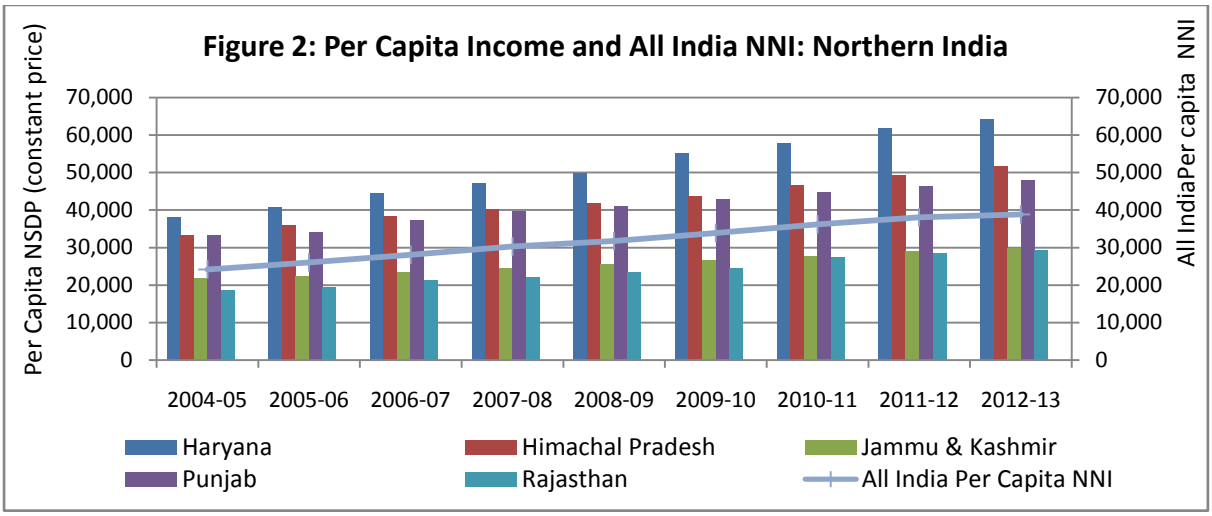
In order to compare the income of the states, the study has concentrated on 27 states[3] including 11 special category states. Data on income are collected for the new series from 2004-05 to 2012-13. The all India average per capita NNP at constant (2004-05) prices increased from Rs.24,143 during 2004-05 to Rs.38,856 in 2012-13. An examination of the

[3] Goa and Telangana are not considered in the study.

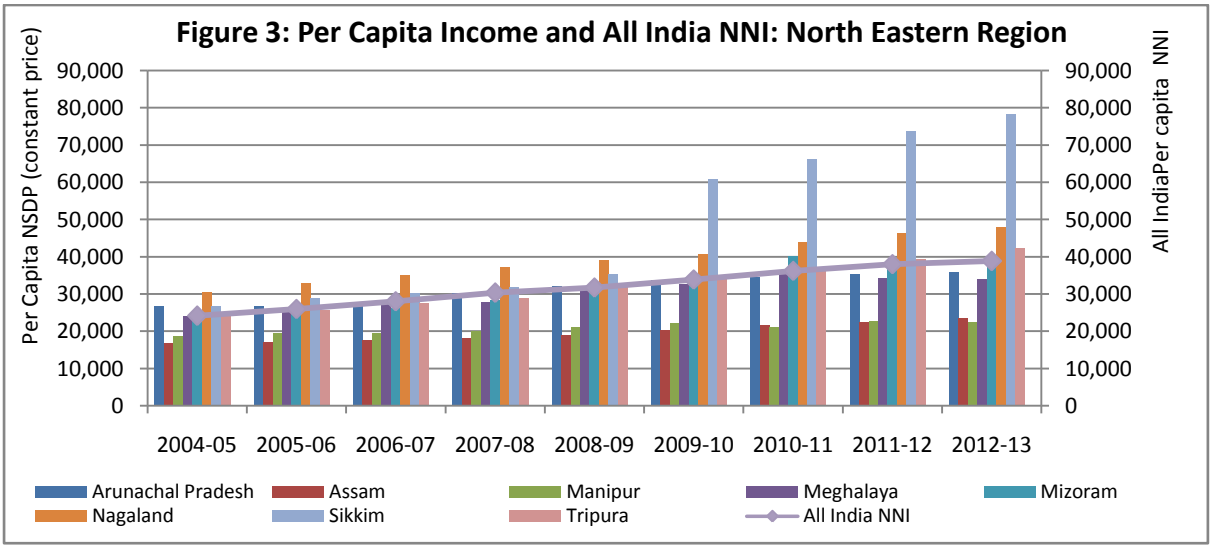
per capita income of the states reflects that per capita income of 12 states including four special category states is lower than the national average during 2004-05 whereas the number increased to 13 in 2012-13. In 2004-05, all the four states, namely, Bihar, Jharkhand, Orissa and West Bengal, of the eastern region (figure 1) have per capita income less than the national average including Jammu & Kashmir and Rajasthan of northern region (figure 2); Assam, Manipur and Meghalaya of the north eastern region (figure 3) and Chhattisgarh, Madhya Pradesh and Uttar Pradesh of the central region (figure 4).



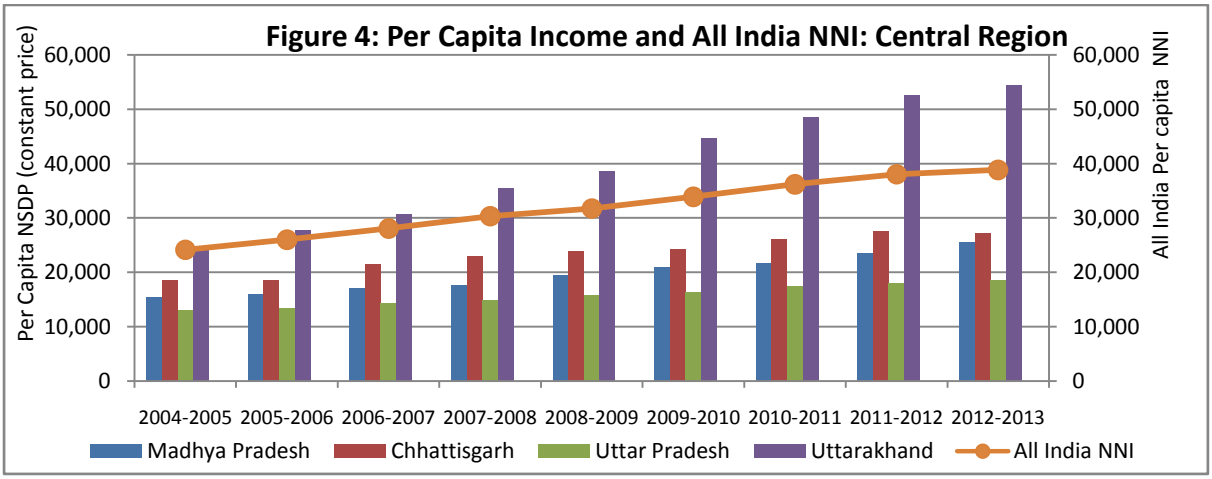
The gap between the per capita NSDP and the national average of the majority of the states of the eastern region has increased. Per capita income of Bihar remained lowest within the region and the gap with the state having highest per capita income within the region has increased overtime.



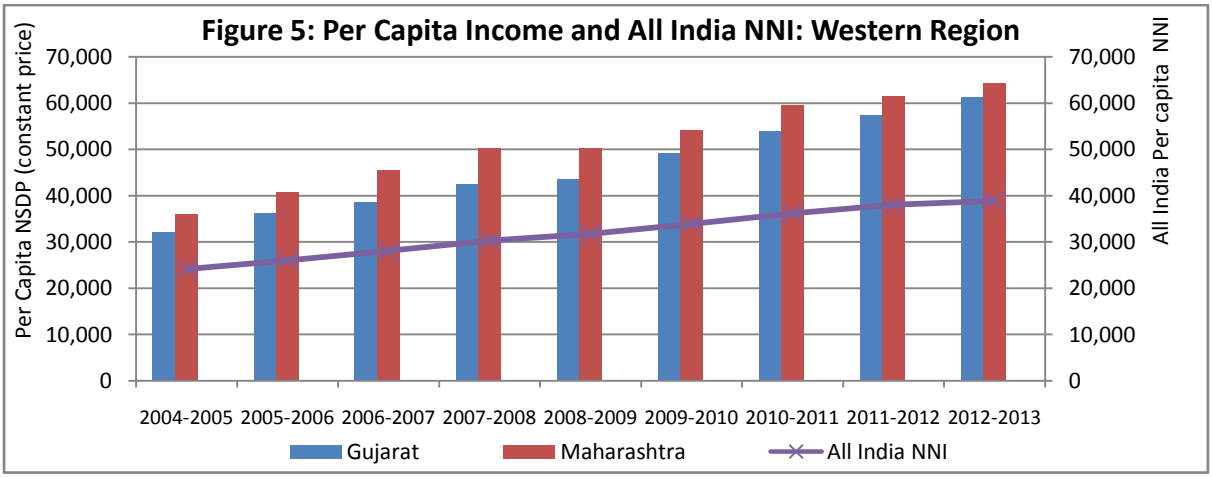
The point to note from figure 3 is that per capita income of Arunachal Pradesh also dropped below the national average in 2012-13 along with the states of 2004-05. Though one and two states and union territories helped to swell the all India NNI but at the same time it is also observed that the rate of increase of per capita income of Arunachal Pradesh has not increased at the rate at which the income of the states above the national average has increased. On the other hand, the per capita NSDP of Sikkim increased extraordinarily on an average by Rs.6467 per year over a period of eight years while that of Manipur increased by Rs.469, the lowest in the country.



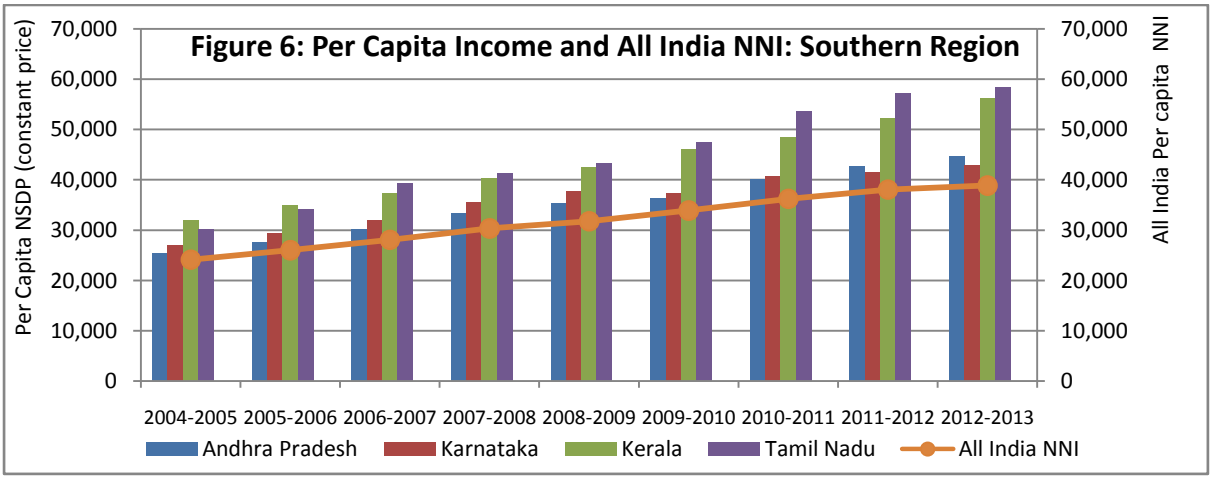
Uttarakhand is the only state of the central region whose per capita NSDP is not only above the national average but the state is also successful in steadily increasing the income along with the margin above the national average over the years. Interestingly, Uttarakhand is a special category state.



However, all the states of western and southern region (figure 5) have per capita income higher than the all India NNP. These are also the states that have initiated policy reforms and succeeded in receiving more than 70 per cent of the total FDI inflows in India from April 2000 to January 2014 both domestically and internationally and conceptualising innovative activities in terms of patents.



Although the per capita NSDP of all the states of the southern region (figure 6) is above the national average of NNI and the state of Andhra Pradesh, Kerala and Tamil Nadu per capita income gradually increased above the all India NNI but that of Karnataka's income did not improved much in comparison to other states of the region.



The foregoing paragraphs highlight that all regions of India do not grow at the same rate and there are differences in the growth in per capita income among the different states of

India. The number of special category states whose per capita income is less than the national average increased from four to five from the period 2004-05 to 2012-13. Majority of research studies on income difference among the states of India focussed on convergence of income and on various variables which are accountable for this disparity in income. However, none of the studies tried to focus into the role of technology in terms of investment in R&D and human capital to explain this income disparity among the states of India.

IV

The neo classical growth theories following 1960s are mainly concerned with the convergence of income among regions or countries assuming technology as an exogenous variable which either is same for all countries or affect the growth process uniformly. The long term determinants of growth are not discussed extensively. It is only with the works of Romer (1987), Lucas (1988), Aghion and Howitt (1992), Grossman and Helpman (1991), Howitt (2000) that long run growth of economies can be sustained through accumulation of knowledge and technology of various nature.

The advent of 'New Growth' theory – Romer (1986, 1987 and 1990), Lucas (1998), Aghion and Howitt (1992), Grossman and Helpman (1991) - has changed the explanation of growth by making technology endogenous to the growth process of the countries. Though technology has been interpreted in different ways by different proponents but all are of the opinion that countries can differentiate themselves by making technology activities endogenous to the growth process. Here it is important to note that Howitt (2000) in a muticountry study found that R&D is positively correlated growth paths of the countries. Howitt also observed that R&D performing countries converge to parallel growth paths because of technology transfer while other countries remain stagnate. The proponents are of the opinion that technology can be made endogenous through investment in R&D and human capital. Economic growth is the outcome of technological change that comes from purposive R&D activities by firms and through accumulation of physical and human capital.

Therefore, following technology-led growth models, it is important to examine whether technology measured in terms of R&D and human capital can explain the difference in growth of incomes among the states of India. Though the importance of technology in the growth process is not perceived by all states equally and as such, the expenditure on research and development also differed vastly among the states. The information provided by ministry of science and technology, government of India shows that 22 states of India have investment in R&D activities. As such, these 22 states are considered for the study.

A cross tabulation (table 1) of R&D expenditure as a percentage of NSDP reveals that 20 out of 22 states, i.e. 91 per cent, spends less than 0.30 per cent of NSDP on R&D. Though at the national level, R&D expenditure as a percentage of GDP increased from 0.80 in 2002-03 to 0.89 per cent in 2008-09 and finally to 0.87 in 2009-10 but it remained low at the state level.

Table 1: Cross tabulation of R&D Expenditure

R&D Expenditure (% of NSDP)	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
0.00 – 0.30	20 (91%)	18 (82%)	19 (86%)	18 (82%)	18 (82%)	18 (82%)	19 (86%)	20 (91%)
0.31 – 0.60	02 (9%)	04 (18%)	02 (9%)	04 (18%)	03 (13%)	04 (18%)	03 (14%)	01 (5%)
0.61 – 0.90	00 (0%)	00 (0%)	01 (5%)	00 (0%)	01 (5%)	00 (0%)	00 (0%)	00 (0%)
0.91 – 1.20	00 (0%)	00 (0%)	00 (0%)	00 (0%)	00 (0%)	00 (0%)	00 (0%)	01 (4/5%)

Source: Author's compilation.

(…) percentage of states.

The R&D expenditure as a percentage of NSDP of Himachal Pradesh, Jammu & Kashmir and Uttarakhand has always remained above 0.30 per cent and that of Manipur increased from 0.25 per cent in 2002-03 to 1.13 per cent in 2009-10. The point to note is that though the per capita income of Himachal Pradesh and Uttarakhand is above the national average but that of Jammu & Kashmir and Manipur remained much below the national NNI. The states with higher per capita income are not the states with higher rate of R&D expenditure. However, the better performing states in terms of higher per capita income are conceptualising their on-going ideas by engaging themselves in innovative activities as reflected in the patents filed by the states over the years.

A cross tabulation (table 2) between the patents filed by different states of India and R&D expenditure as percentage of NSDP shows that there is no correlation between patents filed and R&D expenditure. Maharashtra have filed the highest number application for patents during the period under consideration, however its R&D expenditure as a percentage of NSDP is around 0.05-0.09. Similarly, Bihar's patent application is lowest but its expenditure is around 0.03-0.06 as well. On the other hand, Punjab has consistently invested 0.14-0.17 per cent of NSDP on R&D but its application for patents remained low within the range of 27-75.

Table 2: Patents filed by the States & R&D Expenditure as % of NSDP

	2002-03 (%)	2003-04 (%)	2004-05 (%)	2005-06 (%)	2006-07 (%)	2007-08 (%)	2008-09 (%)	2009-10 (%)
Andhra Pradesh	196 (0.07)	222 (0.06)	254 (0.05)	408 (0.06)	385 (0.06)	414 (0.05)	411 (0.07)	553 (0.06)
Bihar	2 (0.05)	9 (0.06)	41 (0.05)	29 (0.05)	14 (0.05)	21 (0.04)	10 (0.04)	16 (0.03)
Gujarat	161 (0.04)	189 (0.03)	179 (0.08)	203 (0.10)	337 (0.11)	286 (0.10)	295 (0.12)	319 (0.13)
Haryana	75 (0.14)	45 (0.13)	48 (0.12)	93 (0.12)	93 (0.11)	123 (0.10)	126 (0.09)	144 (0.07)
Karnataka	118 (0.13)	180 (0.13)	216 (0.11)	428 (0.11)	596 (0.12)	814 (0.15)	872 (0.15)	755 (0.11)
Kerala	85 (0.12)	88 (0.11)	79 (0.10)	96 (0.10)	128 (0.09)	123 (0.07)	107 (0.08)	166 (0.07)
Madhya Pradesh	30 (0.09)	29 (0.09)	45 (0.09)	55 (0.09)	33 (0.09)	50 (0.07)	51 (0.07)	57 (0.06)
Maharashtra	681 (0.09)	921 (0.08)	1093 (0.07)	1233 (0.06)	1607 (0.06)	1936 (0.05)	1990 (0.06)	2286 (0.05)
Punjab	46 (0.17)	27 (0.16)	27 (0.17)	29 (0.17)	74 (0.17)	44 (0.14)	61 (0.15)	75 (0.15)
Rajasthan	13 (0.09)	28 (0.07)	28 (0.07)	17 (0.08)	44 (0.07)	36 (0.06)	40 (0.07)	55 (0.07)
Tamil Nadu	290 (0.08)	330 (0.08)	397 (0.07)	433 (0.06)	2 (0.05)	708 (0.06)	783 (0.06)	813 (0.07)
Uttar Pradesh	103 (0.05)	126 (0.04)	72 (0.04)	193 (0.05)	205 (0.05)	161 (0.05)	115 (0.05)	321 (0.05)
West Bengal	116 (0.03)	154 (0.02)	131 (0.02)	214 (0.04)	244 (0.04)	303 (0.04)	358 (0.04)	364 (0.04)

Source: Author's compilation from DST.

(....) R&D as percentage of NSDP.

Interestingly, Manipur is the only state whose investment in R&D as percentage of NSDP is more than that of the other states for most of the years and is greater than the national average during 2009-10. But, the state has not filed any application for patent during the period under consideration and the per capita income is below the national NNI as well. Here, it is to be noted that six special category states have undertaken R&D expenditure but no special category states have filed application for patent during the period under consideration.

Thus, it seems that there is no causal relationship between R&D expenditure and growth of the Indian states. One reason might be that except few states, R&D activities are not undertaken purposively by the firms. However, technology can be made endogenous through human capital as well which increases productivity and helps in conceptualising the on-going ideas in the production. Therefore an attempt is made in the following section to

examine the role of technology in explaining the growth disparity among the states of India through panel data.

V

The present study assumes growth in income as the dependent variable and measures this in terms of per capita NSDP at constant prices. Per capita GDP (SDP) is an standard terminology used to measure growth in income across economies. Endogenous growth models and specifically Howitt (2000) showed that R&D helps in raising the per capita income of countries. It is hypothesized in the model that growth in income is positively related with R&D expenditure and therefore, an increase in R&D expenditure improves growth.

Human capital directly improves the growth of an economy and this can be conceived in many forms. Human capital can be enhanced through attainment of education and better health as this helps in increasing productivity. Among others Todaro and Smith (2003) opined that human capital used for education, health and other human capacities can raise productivity when increased. Similarly, Lucas (1988) showed that growth rate of per capita income depends on the growth rate of human capital. In India, various policies and programmes are undertaken both at the central and state levels to increase education and health facilities especially among the vulnerable sections of population. Education and health is a part of social sector expenditure in India and human capital can be enhanced through expenditure in social sector schemes. Thus, higher the social sector expenditure, higher will be productivity and hence, economic growth.

Studies reveal that growth in the Indian states during the last two decades can be explained to a major extent by openness as well. Aitken and Harrison (1999) observed that FDI increases competitiveness by enhancing productive capacity through technology. The states which have been successful in attracting FDI are the states which have relatively performed better compared to other states. FDI in manufacturing has a positive impact on economic growth (Alfaro, 2003). In the context of India, there has been a number of studies on determinants, spill-overs, export growth of FDI including location and its implications (Banga, 2003; Sidharthan and Nollen, 2004). So, FDI is supposed to improve the pace of the economic growth of the states and vice versa. Here, it is to be noted that FDI inflows are classified as per RBI's – regional office received FDI inflows and in many cases, the data covers for more than one state. In these cases, the FDI inflows are equally distributed among the sharing states except Maharashtra.

Investment is an essential component for the growth of the states and data on gross fixed capital formation at the individual state level is not available. The rate of private investment is one of the key to the growth of the states but the poor performing states failed to attract private investment. Though, loans extended by All India Financial Institutions and capital expenditure by the state government can act as proxy for private and public investment respectively but information on loans by AIFIS are not available for the period under consideration. However, CD ratio can act as a proxy for private investment and higher the ratio, better is the performance of the states.

The innovative capacity is an important determinant of the performance of the states. Innovation increases economic growth and development (Grossman and Helpman, 1994). The advocates also show how an innovation system at the national affects economic development (Nelson, 1993; Freeman, 1995). One of the indicators reflecting the innovativeness is the patents filed by the states.

Similarly, enrolment in higher education is essential in order to materialize the ongoing ideas. The higher the manpower in higher education, the higher the technical manpower and higher will be the productive capacity of the states. As such, the enrolment in higher education of the states is expected to be reflected in the growth performance of the states as well.

In order to examine the impact of technology on the growth of the per capita income of the states, a panel econometric model for the period from 2002-03 to 2009-10 is developed. The data for 22 states for 8 years is a balanced panel model with 176 observations. The study focuses on the states which have R&D expenditure for the period 2002-03 to 2009-10 as per the data provided by the department of science and technology, government of India. The states considered for the study are

Andhra Pradesh	Haryana	Madhya Pradesh	Meghalaya	Tamil Nadu
Assam	Himachal Pradesh	Chhattisgarh	Odisha	Uttar Pradesh
Bihar	Jammu & Kashmir	Maharashtra	Punjab	Uttarakhand
Jharkhand	Karnataka	Manipur	Rajasthan	West Bengal
Gujarat	Kerala			

The descriptive statistics (table 3) of the variables (annexure I) shows that there is a great variation among the variables in terms of their role in the growth process of the states. In the case of per capita R&D, we find that there are states which are investing as low as

Rs.0.10 on R&D while some states are investing Rs.307.43 per year as well. This uneven variation is observed with respect to other explanatory variables also.

Table 3: Descriptive Statistics

	Mean	S.D	Maximum	Minimum
PCNSDP (Cons.)	26762.52	10610.48	7148	55044
Per Capita R&D	42.89	47.62	0.10	307.43
Per Capita SSE	1416.01	700.18	430.46	4529.36
FDI	4303.44	11423.14	0	57066
CD Ratio	54.13	21.88	19.4	114.67
Patents	171.76	353.90	0	2286
High enroll	72500.53	79791.37	1897	302734

A regression analysis is done with the help of the following explanatory variables for examining whether technology can explain variation in income among the states of India.

$$\text{PCNSDP (Con.)}_{ij} = \beta_1 \text{PCR\&D}_{ij} + \beta_2 \text{PCSSE}_{ij} + \beta_3 \text{FDI}_{ij} + \beta_4 \text{CD Ratio}_{ij} + \beta_5 \text{Patents}_{ij} + B_6 \text{High Enroll}_{ij} + \alpha + \mu_{ij} + \varepsilon_{it}$$

The significance of these variables is examined with random effects (GLS) regression. The results are then checked through 'Breusch and Pagan LM test for random effects'. In terms of the 'Breusch and Pagan LM test for random effects'

PCNSDP (state, t) = xb + u (state) + e (state, t)

Test: var (u) = 0

Chi2 (1) = 16.64

Prob > chi 2 = 0.0000

In this case, we find

LM χ^2 calculated (16.64) > LM χ^2 tabulated (3.84)

According to the 'Breusch and Pagan LM test for random effects', we reject var (u) = 0 and the model is explained by random effect GLS regression analysis. This is again tested by hausman specification test.

Table 4: Hausman Specification Test

	Coefficients			
	(b) fixed	(B) random	(b-B) Difference	sqrt S.E.
pcrd	-0.403	-1.813	1.410	-
pcsse	3.20	3.611	-0.411	0.667
fdi	-0.179	-0.093	-0.087	0.114
cd ratio	116.438	148.573	-32.135	53.947
patents	2.567	8.702	-6.135	6.109
high enroll	0.005	-0.001	0.006	-

Test: H_0 : difference in coefficients not systematic

Chi 2 (5) = 3.08

Prob > chi 2 = 0.6872

Since prob > chi 2 (0.9280) is more than 0.05, so hausman specification test rejects the fixed-effect and the model is explained by random-effects GLS regression to examine the given factors to explain the growth of income of the states overtime. This means that differences across entities are responsible for explaining the disparity among the states in terms of per capita income. The regression results are presented below.

Table 5: Results of Panel Regression

Dependent Variable: PCNSDP (Cu.)	**Random-effects GLS Regression**	
Independent Variable ↓	Coeff.	P > | t |
PCR&D	-1.82	0.845
PCSSE	3.61	0.000***
FDI	-0.09	0.229
CD Ratio	148.57	0.043**
Patents	8.71	0.000***
High enroll	-0.01	0.947
Constant	14726.9	0.000
R-Square overall	0.5045	
Wald Chi 2 (6)	136.27	
Prob > F	0.0000	
No. Of observations	36	
No. Of groups	19	

*significant at 10 per cent, ** significant at 5 per cent, *** significant at 1 per cent.

The regression model is acceptable and the results show that per capita social sector expenditure, credit-deposit ratio and patents filed by the states has a positive significant influence on per capita NSDP at constant prices of the states. Social sector expenditure increases human capital by increasing productivity. The results support the hypothesis. The higher the CD ratio, higher the investment level of the state and this helps the state to improve its know how among other things. Patents help the state to implement new ideas and hence the competitiveness of the state through product and process innovations. Thus, the quantitative results show that some of the technology components are significant in explaining growth disparity among the states of India.

VI

The perception and analysis of growth among the countries and regions have changed drastically after 1960s and 1970s. The neo classical literature explained the differential growth performance in terms of difference in factor productivity assuming technology as an exogenous factor and that countries have access to technology. As such, these models examined the conditions under which there will be convergence of income among the countries. However, this idea changed after the seminal works of Romer (1986), Lucas (1988), Grossman and Helpman (1991), Howitt (2000) who showed that countries through R&D, generation of ideas and innovations by making technology endogenous to the production can differentiate themselves from other countries. As such, these later growth models did not talked about convergence of income among the countries. Cross country studies also reveal that countries in addition to better governance, with higher innovative activities and technology are performing better than other countries.

In the case of India, we find that though technology is assuming greater importance of the growth process of the economy but the same is not true in the case of states. The states with higher per capita income are necessarily not the states with higher technological activities. Though some indicators of technology are higher for the better performing states but R&D expenditure is low. The random effect GLS regression model suggests that differences in variables considered in the model are important in explaining the growth disparity among the states of India and some of the technology related variables can explain the disparity of growth among the states of India.

One of the major limitation of the study is that it could not captured the R&D effort or expenditure by private and central government institution at the state level because of non-

availability of data at the state level. Therefore, there are scopes to capture this expenditure through appropriate measures.

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Annexure I

Definition of the Variables

Variable	Symbol	Definition	Data Source
Per capita Income	PCNSDP (Cons.)	Per capita Net State Domestic Product at constant prices.	Handbook of Statistics on Indian Economy 2013-14, RBI
Research & Development	R&D	Per Capita Expenditure on R&D by state governments	R&D Statistics, Department of S&T, Govt. of India.
Social sector expenditure on Human Capital	SSE	Per Capita Total developmental expenditure by the states on education, health and nutrition.	State Finances, Various Issues, RBI.
Foreign direct investment	FDI	FDI equity flows received by states.	DIPP, Govt. Of India
Credit deposit ratio	CD Ratio	Ratio of total credit to deposit by scheduled commercial banks.	Statistical Tables Relating to Banks in India, RBI
Patents	Patents	Number of ordinary applications for patents filed by different states.	R&D Statistics, Department of S&T, Govt. of India.
Enrolment in Post Graduate courses	High Enroll	Enrolment (excluding open universities) in Ph.D/M.Phil, post graduate degree in Arts, Commerce, Science, Engineering/Technology/Architecture/Design, Medicine, Agriculture & Allied, Management/Hotel/Travel/Tourism Management, Education/Teacher Training, Law and Others.	Statistics of Higher and Technical Education, Various Issues, MHRD, Govt. Of India.