DISPARITY AND CONVERGENCE DEBATE: A DETAILED STUDY OF ODISHA

A dissertation submitted to the University of Hyderabad in partial fulfillment of the requirements for the award of

Master of Philosophy
In
Economics

By
Anita Panda
Regd. No 17SEHL19

Under the supervision of
Prof. B. Nagarjuna

School of Economics
University of Hyderabad
Hyderabad- 500046, India
June 2019

DECLARATION

I **Anita Panda**, hereby declare that the research embodied in the present dissertation entitled, **"DISPARITY AND CONVERGENCE DEBATE: A DETAILED STUDY OF ODISHA "** is an original research work and is free from plagiarism, carried out by me under the supervision of **Professor.B.Nagarjuna,** School of Economics, for the award of Master of Philosophy from University of Hyderabad**.** I also declare to the best of my knowledge that no part of this dissertation is earlier submitted for the award of any research degree or diploma in full or partial fulfillment in any other university. I hereby agree that my thesis can be deposited in Shodhganga/INFLIBNET.

A report on plagiarism statistics from the University Librarian is enclosed.

DATE: **ANITA PANDA**

PLACE: HYDERABAD **REGD. No. : 17SEHL19**

School of Economics
University of Hyderabad

Certificate

This is to certify that **Ms. Anita Panda** has carried out the research embodied in the present dissertation entitled **"DISPARITY AND CONVERGENCE DEBATE: A DETAILED STUDY OF ODISHA"** for the degree of Master of Philosophy in Economics, under my supervision. I declare to the best of my knowledge that no part of the dissertation is earlier submitted for the award of any research degree in part or full at any University.

Prof. B. Nagarjuna
Research Supervisor
School of Economics

Dean
School of Economics

ACKNOWLEDGEMENT

This dissertation was successful with the constant support and help of several people. I would like to express my sincere gratitude to all of them. First and foremost, I would like to express my sincere gratitude to my research supervisor **prof.B Nagarjuna** for the relentless support that he constantly provided me during my M.phil study and for his patience as well as guidance. His assistance helped me during the course of my research and also in writing this dissertation.

I would also like to extend my gratitude towards the Faculty at the Department of Economics for providing me with the facilities and support for finishing this dissertation, and other office staff for their timely assistance in the office formalities.

The IGML library was a great help during my research period and I thank its staff for their support.

I would like to thank my friends at the Department of Economics and also all my classmates who patiently heard and discussed my concerns and doubts at length which helped in the successful completion of this dissertation.

Words are not enough to convey my sincere thanks and gratefulness to the most important people in my life; my parents. I thank them for giving me much required support and motivation to complete this work in such a short time span.

CONTENTS

Bibliography

Conference Certificate

Plagiarism report

	LIST OF TABLES	
Table no.	Table Name	Page no.

LIST OF FIGURES

LIST OF ABBRIVIATIONS

NDDP	NET DISTRICT DOMESTIC PRODUCT
NSDP	NET STATE DOMESTIC PRODUCT
PRIM	PRIMARY
TER	TERTIARY
SEC	SECONDARY
ELS-GAS-WTR	ELECTRICITY, GAS AND WATER SUPPLY
ADD	ADMINISTRATION
RE-OWN, DWE-BS	REAL ESTATE, OWNERSHIP OF DWELLINGS AND BUSINESS SERVICES
BAN-INS	BANKING AND INSURANCE
TRANS-STOR-COMM	TRANSPORT, STORAGE AND COMMUNICATION
TRA-HOT-RES	TRADE HOTEL AND RESTAURANT
DESO	DIRECTORATE OF ECONOMICS AND STATISTICS
PCI	PER CAPITA INCOME
GSDP	GROSS STATE DOMESTIC PRODUCT

CHAPTER-1

INTRODUCTION-

1.1 regional disparities & why is it important to study-

Regional disparity or regional dualism is not new to Indian economy; it's been a part of it since a very long time. Disparities in growth and development exist in terms of per capita income, expenditure, literacy, poverty, in terms of health indicators, and other socio economic terms. Not only are there inter-state disparity but also disparity within the states prevails and to a great extent & it hinders the economy from growing at its potential level. Over development of some regions and under development of the other, results in misallocation and under utilization of resources. Economic growth accompanied with widening regional disparity is no less a serious concern for the country, states and even for districts. Regional disparity in terms of employment, industry, infrastructure, income & standard of living is due to differences in endowment of resources and distribution of the same. As a matter of fact Indian economy has achieved remarkable growth after the economic reforms implemented in 1990s. Most of the sectors have shown positive growth rate, be it primary, secondary, or tertiary. India has reaped the benefits of economic reforms. However the benefits of the development are not equally distributed among the different regions of the country. Some states are acquiring a much bigger share in the growth while others are left behind. Some states like Maharashtra, Karnataka, West Bengal, Gujarat, Tamil Nadu, and New Delhi are having better infrastructure, received higher investments & grew even more making the regional disparities situation further worse (Kant, S. 1999). The gap is large enough to put pressure on the economy. So it is one important issue which needs serious attention and action.

1.2 Background information-

India being the 7^{th} largest country in the world in terms of area has significant regional differences in terms of the size of population, geography of regions, climate, culture, language

etc. Similarly, there exists large differences in terms of level of economic development and hence the existence of the problem of regional disparities. There is a high level of variation among states in terms of the size of population and so there is a high percentage of population living below the poverty line. States like Odisha, Bihar, Chhattisgarh, and Jharkhand have population below poverty line in the range of 30-40% where as there are states like Maharashtra, Karnataka, Tamilnadu where the poverty line ranges from 10-20 %(press notes on poverty estimates 2011-12).

Many economic studies reveals that development originates differently in different regions because of endowment of resources such as natural, human, and others. These regions again attract investments from other regions and grow further. But in case of India, nothing like that is happening. Some states like Odisha possessing rich resources are one of the poorest while Maharashtra possessing poor resources is much richer. Thus in India availability of resources alone does not determine the process of development, rather social and political factors play an important bearing on development.

Regional disparity is not a problem as long as the gap is not threatening enough and is not widening further. As mentioned by (Kantawala and Rao1992) perfectly balanced regional development in a country like India is not desirable and is not possible either. So solution to the problem of regional disparity will be eliminated through regional development and not by perfectly balanced regional development. But in case of India many studies have found that regional disparity is increasing in spite of measures adopted by the government to reduce them. It is a well known and proven fact that in large economies, anecdotal resource bases and endowments will result in disparate growth path over time. Being the fastest growing economy in the world, India is no exception and is facing and resolving this issue of regional disparity since ages now. It's no surprise that rate of growth of gross domestic product has accelerated to 6.0% and more after the reforms in the 1990s (Bhattacharya B.B & Sakthivel S. 2004). But is the growth an inclusive one or is it exclusive to some states or regions of the country? To answer this question, many studies have given their verdict. Some favored the economic reforms while

others questioned it. Economic reforms strengthened the economy (Tendulkar S.D & Bhavani T.A.2007). Economic reform has increased the growth without adversely affecting the poverty reduction trend (Nagraj, R. 2000). (Jha, R.2000) on the other hand stated that examining growth dynamics from aggregate perspective can be misleading because of evidence of not a single pattern in the growth rate. He found that there is convergence in some cases and divergence in others. Among those who questioned the economic policy are, Kant S. 1999; Nagaraj R.A. et al,1998 ;Rao M.G. et al,1999;Dholakia R.H. 2003; Mazumdar, T.2005;Nayar G.2005; Kar S. & Sakthivel S. 2007 etc, have found that India's regional disparity has widened after the 1990s policy reforms, and has become a serious concern.

1.3 relevance of the study-

Before economic reforms, the focus of our government was to provide basic social services, provide subsidies and promote industries .But the provision of social services and subsidization of basic and essential items ended up in the siphoning off of public funds into the hands of a few well-off people. As has been discussed earlier, many studies have found aggravated regional disparity after the economic reforms. This means that the poor regions are remaining poor where as the richer regions are getting richer day by day. This imposes a serious threat because the country cannot grow at its potential level. Regional disparity is a common phenomena but it can be serious threat if it widens further and there is no convergence trend found.

It has been seen that the level of disparity or inequality is generally higher in the areas which are growing at a faster rate. The fastest growing state Kerala has the highest level of vertical inequality among all (Dubey, A. 2009). As the Solow model of long run economic growth suggests, the poor economies are suppose to grow faster than the rich economies and there will be convergence to common steady state equilibrium in the long run. If we assume this theory to be true then poor state like Odisha is suppose to grow at a quicker rate than other developed and rich state so that in the long run there will be convergence. Following the theory it has been seen

that Odisha being a poor state is growing at a high rate in recent years, but again as we know the fastest growing economy faces the highest level of disparity as well. So the question here is that the growth of the economy, is it a balanced one or some regions are reaping the fruit while others are starving without food? The question makes it relevant to intervene into the economy of Odisha and see if the regional disparity is at alarming stage.

1.4 Research Questions-

The first and foremost thing to look into is what the extent of regional disparity prevailing in Odisha is? Is it alarming one and preventing the economy from growing at full fledge? Are the districts of the economy converging towards a steady state or is there a growth pattern following the convergence trend? What is the growth pattern of different sectors and what is their share in the total disparity? These are few important questions that the study offers to solve.

1.5 Conceptual Framework-

Theories of regional disparities and the convergence/divergence pattern followed by the nations and different regions were always there because of the uneven pattern of growth followed by the regions. Economists like Richardson, Myrdal, Solow, Kuznet have given their theories based on inequality and the uneven growth pattern. Richardson in his theory said that 'the state of art of regional growth theorizing is very primitive' (Richardson 1973). The region for this kind of affair according to him is that, much time and effort have not been put into the development of regional growth theories and also the regions. He has put forth his argument saying that once development differences appear, a chain effect will favor the developed regions. Myrdal in his views called it as the "Backwash effect", which causes the development of one region costing underdevelopment of the other regions. For the elimination of this backwash effect it is important to reduce the polarization effect, as suggested by (Hirschman, 1958). Polarization effect should be reduced and trickledown effect should strengthen because the trickledown effects are the favorable repercussions for the regions that are backwashed due to development in a periphery region. . Myrdal calls such effects as "spread effects". These trickle down or spread

effects consist mainly of an increased demand for the backward areas' products and the diffusion of technology and knowledge.

There are theories that points out the dualistic pattern of development, where a particular unit tend to develop faster than the other regions due to various reasons such as historical, natural and local factors. And this phenomenon has been pointed out by Perroux (1970) in his seminal work growth pole. There he has opined that "growth does not appear everywhere at the same time; it becomes manifest at points or poles of growth, with variable intensity; spreads through different channels with variable terminal effects to the whole of the economy". His work seems correct in Indian concept. The unequal growth pattern followed by Indian states makes his statement true. Again it's not just regional disparity that is a problem for the economy but the convergence debate started by the neoclassical economist Solow is also one more thing to check. If economies does not converge in the long run it poses another threat to the economies.

1.6 research objectives-

1. To examine the extent of disparity among the districts of Odisha in terms of NDDP and Percapita NDDP.
2. To examine if there is convergence or divergence among the districts of Odisha.

1.7 About the study area-

Odisha is one of the fastest growing states. Its economy is essentially agriculture based but the growth of the economy is seen to be backed by tertiary sector. So we can say that the economy of the state is transiting towards a tertiary and manufacturing based one. The state consisting of 30 districts is based with huge mineral resources. Odisha contributes one of the largest shares of mineral resource production of the country in terms of its value. Most of the mineral resource reach districts are situated in northern part of the state. Coastal districts are dominated by agricultural sector and the southern region has most schedule tribe population and is dominated

by hilly and forest areas. The central region is one of the biggest hub for tertiary sectors and is most crowded as well because of migration of people in search for job and better education. The major tertiary sectors are found to be situated in the twin cities of the state which are also situated in the central region. Bhubaneswar the capital of the state is declared to be the first smart city of the country by central government and is growing at a much faster rate than any other districts due to its capacity to attract more investment. Over all the state is growing at a faster rate but is not running alone in the race. Regional disparity and inequality of income as well as other social indicators are not letting the state run alone.

1.8 Research gap-

The problem of regional disparity is not limited to the country or among the states. There are also districts within a state which grows in a unequal manner. And this problem hinders the state from growing at its potential level. Study of interstate disparity has grabbed much more attention than intra state disparities, while both needs equal attention. So this study focuses on bridging that gap by looking at the intra state disparity level and the convergence/ divergence pattern of the districts of Odisha.

1.9 Methodology-

A proper and well developed methodology which fits the available data is a basic principle for good analysis. Since the present study is concerned only about one state, the data for the period between 1993-94 to 2011-12 on NSDP & NDDP with all its subsectors has been collected from the directorate of economics and statistics Odisha. The data are available in different base years such as 1999-2000, 2004-05 etc so the whole data has been converted into a single base year i.e 2011-12 using the splicing method. The study has only used secondary data for the analysis of both the objectives. This part presents the econometric and statistical methods and models that has been used to fulfill the objective of the study.

The methodology is presented in the following manner. Section-1 describes the different methods used to calculate growth rates and the share of the regions. Section -2 describes the decomposition of growth rate of an aggregate variable. Section -3 represents the methodology that has been used to analyze the convergence hypothesis.

1.9.1 Measurement of share of different revenue divisions

The 30 districts of the state has been taken as 3 different revenue division according to classification of government of Odisha. Each revenue division is consisted of 10 districts. Central revenue division generally consists of the coastal area along with the twin city of the state. Northern revenue division consists of the maximum no. of mineral resources rich areas. The southern revenue division consists of both mineral resource areas and also coastal areas. To eliminate the fluctuation of data the entire 19 years of data has been divided into 4 sub periods. 1993-94 to 1997-98, 1998-99 to 2002-03, 2003-04 to 2007-08 and 2008-09 to 2011-12. The share of different revenue divisions into the total NSDP has been calculated by dividing the NDDP of each revenue division to the NSDP from that particular sector.

Share of a revenue division in total nsdp of Odisha= nddp of that revenue division/ nsdp of Odisha.

1.9.2 Measurement of growth rate

Two types of growth rate has been calculated taking into consideration the objectives of the study and nature of the data.

Simple one period growth rate:

$$g_t = \frac{(Y_t - Y_{t-1})}{Y_{t-1}} \times 100$$

Here g_t= percentage growth or change in variable Y from previous period t-1 to the current period i.e t.

1.9.3Least square growth rate:

Here the least square growth rate has been estimated by fitting a linear regression trend line to the log of annual values of the variables taken for the study in the relevant period.

Ln $Y_t = \alpha + \beta_t + \mu_t$

1.9.4 Decomposition of change in growth rate:

Decomposition of growth is really essential if the variables under study (here it's the growth of domestic product) is composed of many other variables. Decomposition helps us to identify which way to change in the main variable. Suppose we are taking Y as our dependent variable, and we want to estimate the growth of it then decomposition will help us to know which particular variable contributed how much in that growth rate.

Eg: $Y_t = X_t + V_t + Z_t + \mu$ (t- current period)

The growth rate in Y can be written as

$$G_{y1} = w_{xt} * g_{xt} + w_{vt} * g_{vt} + w_{zt} * g_{zt} + \mu \quad \text{.....1}$$

Where $gy = (Y_t - Y_{t-1} / Y_{t-1})$

$g_{xt}, g_{vt,}$ and g_{zt} are the growth in those respective sectors and "w" here is the weight of those sectors. And μ_t is the error term here.

$$G_{y2} = w_{xt2} * g_{xt2} + w_{vt2} * g_{vt2} + w_{zt2} * g_{zt2} + \mu \text{.....2}$$

$$G_{y2-} G_{y1=} (w_{xt2} * g_{xt2-} w_{xt} * g_{xt}) + (w_{vt2} * g_{vt2-} w_{vt} * g_{vt}) + (w_{zt2} * g_{zt2-} w_{zt} * g_{zt}) + \mu \text{.....3}$$

Dividing each variable by the dependent variable we will get-

$$100 = (w_{xt2} * g_{xt2-} w_{xt} * g_{xt}) / G_{y2-} G_{y1} + (w_{vt2} * g_{vt2-} w_{vt} * g_{vt}) / G_{y2-} G_{y1} + (w_{zt2} * g_{zt2-} w_{zt} * g_{zt}) / G_{y2-} G_{y1} + \mu \text{.....4}$$

Equation 4 here gives us percentage contribution of each variable to the growth rate of the dependent variable.

1.9.5 Growth and disparity (convergence test)

The basic assumption of convergence hypothesis is that, economies with lower percapita income will grow faster than the rich ones and there will be convergence in the long run among all the regions. The literature on convergence has generated two tests of convergence. Beta convergence and sigma convergence. Both these tests are presented in the study.

1.9.6 Beta Convergence-

It is of two types, absolute of unconditional beta convergence and conditional beta convergence. Conditional beta convergence can be checked when we are taking all the variables like growth rate of population, savings, investment, infrastructure etc of the economy into consideration. Absolute convergence happens when simply poorer regions grow faster than the rich ones taking only percapita income into consideration, all the other variables that affect the percapita income are taken constant here.

Due to data constraint the study has only estimated the absolute convergence. The method suggested by Barrow & Martin (1992) & Mankiew et.al (1992) has been followed here for the estimation.

$$G_{percapita} = \alpha + \beta(\log \text{ of initial nddp}) + \mu$$

Here the parameter β measures the speed of convergence i.e if the sign of the coefficient is positive then that means the regions which have high initial income are growing at a faster rate than those who have a low initial income. In this case there will be divergence in the long run. If

the sign of the coefficient is negative then that means the poorer regions are growing at a faster rate than the rich ones and there will be convergence in the long run.

1.9.7 Sigma convergence-

it is a much simpler concept than beta convergence. Here if the dispersion of percapita income among regions declines we can say there is sigma convergence.

For the purpose of estimation the dispersion of log of percapita income is computed for each year across regions. For the same purpose we have taken standard deviation and coefficient of variation as our measuring tools.

1.9.8 Limitations of the study-

1) Due to unavailability of data the study couldn't incorporate the latest data for the analysis purpose. Also the available data for the state in different revenue divisions are not equal to the summation of the districts data available there in which is one major problem.

2) Conditional beta convergence could not be checked because of lack of availability of time series data on variables like, savings, investment, infrastructure etc.

CHAPTER-2

REVIEW OF LITERATURE:-

This chapter is dedicated to review the relevant theories and literature related to regional disparity. It will help to understand the complexity of growth and development in the different regions and will help to develop a strong theoretical base for the present study. As we have already discussed in the previous chapter regional disparity is a common phenomena but the degree of it decides whether it is dangerous or not. It is argued that interregional inequalities among states are more pronounced in the less developed regions as compared to the developed ones. Williamson (1965) in his work stated that the poor countries are characterized by large and growing regional disparities and the rich countries are generally characterized by small and diminishing gaps. The study by Berry and Urutia (1976) on international comparison of regional dispersion of incomes highlights that the developed economies have less regional inequality than the less developed economies (including India). As India is one of the fastest growing countries it is even important to study which regions are the ones that is contributing to the growth of the nation more and which region is lacking.

The present chapter also involves studies those have incorporated the convergence/divergence pattern followed by Indian states. The convergence hypothesis given by Solow involves two types. One is sigma convergence and another one is beta (β) convergence. Sigma convergence simply happens when the dispersion of percapita income among regions decline and beta convergence takes place when poorer regions grow at a faster rate than richer regions (absolute convergence). There are many literatures found those who have tested for convergence but have shown contradictory results from each other. Follows are the results of some important studies conducted to see the degree of regional disparity and convergence hypothesis.

(Ravindra h dholakia ,1989): the work examined the available data on the industrial sectors of 17 major states of India for the period of 1979-84. He has stated that all the southern state without any exception have grown at a rate lower than the national growth rate in net value added in industry. The northern states except Rajasthan and Punjab on the contrary have grown at a rate higher than the national growth rate in industry over the period 1979-84. The study found that if the degree of regional concentration is reduced by 1% point then the growth rate of industry on an average would rise by 0.16% point. The author argued that political situation in centre and states are also to be blamed for such type of regional imbalance.

(Uma dutta roy chaudhury,1992) : she has examined the sources of growth and factors affecting growth and structure at the state level for understanding regional imbalances in levels of economic development and the standards of living of the people. The measured interstate disparity in terms of State Domestic Product (SDP) and percapita household consumption expenditure gives an idea about the economic status of the states and standard of living of the people. She also made comparisons of ranking of the studied states on the basis of per capita income and per capita consumption expenditure. The comparison gives an idea about standard of level of consumption of the people and level of disparity between the states. The study found that both for percapita SDP & percapita consumption expenditure the interstate disparity is always higher in constant prices than in current prices irrespective of the measure taken. Also the disparity shows higher number for percapita income than for percapita household consumer expenditure.

(Kurian,2000): By taking 15 major states of India which accounts for nearly 96% of the total population, assessed disparity with regard to socio economic indicators. By categorizing the states into forward and backward groups he found that since early 1980s along with ongoing economic reforms since 1991 aggravated the disparity among states. While the forward states are much more higher in terms of social development, infrastructure, education, percapita income & private investment. Backward states (assam, bihar, Madhya Pradesh, Odisha, Rajasthan, uttarpradesh, and westbengal) are maintaining their backward position on all the ground

mentioned above. The backward states Even after getting larger share of tax revenues from the centre the gap between forward and backward states has not been bridged yet.

(Montek s. ahluwalia,2000) : the objective of the study was to show the economic performance of the states in post reform periods and the findings depicts exactly what the condition is. The study found that the most poorest states of India which are Bihar, Uttarpradesh And Odisha which together accounts for over one third of the country's population did perform very poorly in 1990s. Except these three poor states all the other states managed to narrow down there percapita income gap with the two richest states. The three mentioned states where percapita income growth is very low there the poverty rate has not declined at all. Though the study couldn't provide the reasons for such a trend due to lack of data it gives enough evidence for the existence of interstate disparity.

(Raja j. chelliah & k.r. shanmugam,2007): he has found from the study that poverty & backwardness in a group of states which accounts for nearly 50% of the total population of India. And worth mentioning the point that Bihar, uttarpradesh, Assam, Odisha, madhyapradesh & Rajasthan continues to be at the bottom from 1995-96 to 2004-05. The gap between the richer states and the poorer states has been increased from 2.55times to 3.76 times in constant prices. He has found that not only on the basis of percapita income but also on all the socio economic indicators like poverty ratio, life expectancy, infant mortality, literacy etc these six states have failed to achieve significant improvement over the period. Finally the author has suggested various new growth strategy considering the above result to bridge the gap.

(Swati raju,2012): by taking beta and sigma convergence to measure disparity the author found evidences supporting convergence of the growth rate of Indian states for the span of 2001-10. She has found that all the states including special category states are converging towards equilibrium. Though the evidence for convergence is weakest for the group of special category

state and the magnitude of it is also much lower than all the other states still it's a positive sign for the economy.

(B. B. Bhattacharya and S.Sakthivel,2004): the author attempted to answer the question while disparity has accelerated in the post reform period or not. The study has covered both pre reform and post reform period pre-reform period refers to the 1980s (1980-81 through 1989-90) and post reform period to the 1990s (1990-91 through 1999-2000). The study has considered 17 major states for the analysis. Result of the study taking growth performance and structural changes in the domestic product of Indian states in the last two decades reveals that the development process has been uneven across states. While advanced industrial states have seen to grow faster in the reform years, other states have lagged behind. The poorer states have not only performed poorly but their failure to control population growth has left them in an even worse position .the study also mentioned that the tertiary sector, rather than industry, has become the engine of growth in the last two decades.

(Sabyasachi Kar and S. Sakthivel,2007): the study has taken two objectives Firstly, to analyze the effect of reforms on the trend in regional inequality in both 1980s and 1990s & Secondly, it measures the sectoral contributions to regional inequality. The study found that the high growth rate at the industrial and service sector during 1980s led to diminishing inequality the reverse took place during 1990s so they concluded that it is not the growth rate but the composition of it determines the effect it will have on regional inequality. The second point that emerges is contrary to the findings of earlier studies, which is the agricultural sector contributed significantly to divergence, for the two decades under study, this sector kept a check on the growth of regional disparity. And most important point discussed by the author is that the upward trend of industrialization after 1990s indicates an intensification of the agglomeration economies in these sectors.

(Gaurav Nayyar,2008): By conducting a panel data study for 16 Indian states for the period from 1978-79 to 2002-03 the author aimed to verify whether the growth rate of states has any tendency to converge or not. And the findings are pretty similar to most of the studies conducted before. The major findings are:-

"(a) the states are not converging to identical levels of per capita income in the steady-state; (b) once factors that affect steady-state levels of income are controlled for, the poor states grow faster on average than the rich ones; and (c) there is an increase in the dispersion of per capita incomes across states over time. This is indicative of Indian states converging to increasingly divergent steady-states, which may be attributed to increasing inter-state disparities in levels of private and public investment and an insignificant equalizing impact of centre."

(Achin Chakraborty,2009): the study argues that there are relevant aspects of disparity across and within states as far as non-income dimensions of well-being are concern. And to prove their argument author has discussed the notions of equity and fairness and related them to well-known allocation rules such as leximin and population-weighted utilitarianism, in the context of resource allocation from the national to sub-national governments. After clarifying a variety of conceptual issues, the study has described about practical instance of distribution of primary school infrastructure across and within states. And the findings are not really surprising . the distribution is highly perverse, in the sense that areas those are found with high rates of illiteracy are the ones which have poorer infrastructure even in 2005-06, after several years of the SARVA SIKSHA ABHIYAN.

(Kiran Mor & Sarita Devi,2017) : in their study they have tried to figure out the regional inequality prevailing among states with regard to social and economic indicators of development. In economic indicators they have taken GDP and PCI of the states and have found that BIMARU states are found to be performed well in eleventh five year plan period and convergence is increasing after post reform era in GSDP, but regional disparity is widening in terms of PCI across states during 2004-05 to 2011-12. In case of social indicators interstate disparities in terms of literacy rate is declining due to increased investment in education sector,

and about another social variable that is health that includes IMR and MMR, interstate variation in these variables are found to be declining.

(Paul Cashin And Ratna Sahay,1996): By taking sectoral composition of the 20 state the study found that about 1.5 percent of the gap between real per capita incomes in rich and poor states was closed each year during 1961–91.taking that into consideration the author estimated that in India "it would take about 45 years to close half the gap between any state's initial per capita income and the states' common long-run level of per capita income. In an industrial country, it would take only about 35 years." As there is a regional bias in terms of fund transfer from centre to state i.e poorer regions get more fund than the richer ones it ensures to bridge the gap between states.The study found that immigration of labor has no significant effect towards disparity.

(Amaresh Dubey2009): calculated intra-state disparity between district Gujarat, Haryana, Kerala, Orissa and Punjab by taking NSS consumption expenditure data for 2 rounds. He chose 3 major indicators such as consumption, inequality & the incidence of poverty to estimate regional disparity. The states were on a same level of poverty during 1973-74 but the author after analyzing the data found that the fastest growing state Kerala had the highest level of vertical inequality among all. The highest level of intra-state poverty is found to be in Punjab, followed by Gujarat & Kerala. The lowest level of intra-state inequality was in Haryana & Orissa respectively, which were the poorest states as well.

(Gaurav,2008): the paper attempted to provide a comprehensive analysis of the trend of unequal distribution of income among 16 major states. The data taken from the period 1978-79 to 2002-03 was to show a clear picture of the economy after 1980's liberalization policy. The author found no evidence of absolute beta-convergence which implies that states are not converging to identical steady states rather they are moving towards their own steady states. He found no sigma-convergence rather the analysis clearly depicts existence of sigma-divergence.the major

two factors responsible for the resulted intra-state disparity is unequal private and government investment and an insignificant equalizing impact of centre-state transfer, the author mentioned.

(Chakrabarti et.al,2000): examined the inter-state as well as inter-sectoral convergence and divergence pattern by taking data for the period 1960-61 to 1995-96 at 1980-81 base year price level. The states were found diverging in terms of per capita income but are converging in terms of shares of the different sectors in the state domestic product. However the overall trend shows convergence toward national average. The state which are converging are Andhra Pradesh, Assam, Bihar, Delhi, Goa , Karnataka, Maharashtra, Orissa, Tripura, & those who are diverging are Gujarat, Manipur, Pondicherry and Punjab .

(Mukherjee & Chatterjee,1967): they examined the trends in distribution of national income by taking data from 1950-51 to 1965-66 which was also the first three five year plan period. They found clear picture of regional disparity in plan period compared to the pre plan period. The inter sectoral disparity remained relatively stable during the first and second five year plan but then it increased in the third plan. Disparity in savings as well as consumption also increased in 2^{nd} and 3^{rd} plan period. Although the study do not exactly stresses on the point of inter-sector disparity it does found some at the end part of 1953-54. Disparity in terms of percapita income among different states is major conclusion of the paper.

(A.C Minocha,1983): the author focused on analyzing the policy measures undertaken to combat regional inequality in the planning periods rather than getting into the extent of the same. Intra-regional disparity has been found to be widened over the plan periods. The author analysed the data over the period 1960-61 to 1975-76 and found that the states having lowest growth rate are Orissa , Bihar, Madhya Pradesh , Rajasthan and U.P . the imbalanced public and private sector resource allocation, unequal grants from centre to state, overlaping policies to combat inequality having same objective are the reasons of failure of government in dealing with inequality.

(Amitabh & Shalini ,1996): the paper focuses on the trend of migration and urbanization in the pre and post liberalization period and regional inequality among and within states. Inter state migration is found to be gone down in the post reform period but intra state migration has gone up due to concentration of investment and job opportunities in few urban areas which also shows unequal resource distribution and regional disparity.

(Jayanthakumaran,2010): the study deals with convergence/divergence trend in regional India over the period 1982-2006. He found that majority of states in post reform periods are converging to national average except the poorest states like Bihar, Madhya Pradesh, Manipur, Orissa, and Uttar Pradesh. They are way behind the other developed states in terms of literacy and are not even catching up during both pre and post reform period.

(Raychaudhuri & Haldar,2009): the study analysis two different aspects of growth, physical infrastructure and social infrastructure. As physical infrastructure plays a major part in income distribution the study primarily focuses on that aspect. The study clearly shows a rising disparity among the districts in the first half of the present decade after a continuous decline in the last decade of the last century.

(S.L Shetty,2003): found that the inequality among states with respect to state domestic product is rising over the years. It was stable during 1980s but then started increasing after the economic reform took place. The revised 1993-94 data shows decline in disparity but between 1993-94 & 2000-01 the rising trend persisted. The ginni coefficient for 16 major states are significantly lower but for all the other states and union territories there is presence of wider disparity is being found. There is a major disparity with respect to sectoral share persists between states in both current and constant prices.

(Bhattacharya,2009): the discriminate pattern of public expenditure among 6 major which includes Bihar, Uttar Pradesh, Jharkhand, Chhattisgarh, Madhya Pradesh and westbengal states are being analyzed. He took the actual treasury data on government expenditure made in education, health, & supply of drinking water in these states and found that both the expenditure on primary, secondary and higher education shows highest disparity ratio in Bihar. In medical and water supply group utter Pradesh shows highest level of disparity in allocation of funds to different areas of the states.

(B.B Mohanty, 2009): he showed the disproportional agricultural development pattern in different districts of Maharashtra. While west Maharashtra is much ahed of other regions in all the development indictors vidarbha & marathawada experienced some improvement in recent years. The disproportional growth is found to be due to political situations of the region and the policy measures undertaken to eliminate it.

(Chirashree,2009): the author amalgamated the findings of other research papers on regional disparity and discussed in brief about the role of government and centre-state fund allocation, normative and positive aspect of disparity in both inter and intra state level, the disproportional growth rate of different sectors of the economy and so on. The developed states are found to be converging but are cursed with vertical inequality where as the under developed states are found to be diverging.

(D.M Diwakar,2009): addressed that intra regional disparity in Bihar is posing serious threat on government. Agricultural and irrigation sector has been deprived from adequate resource allocation. The research states that no districts in the eastern and bundelkhand region are as developed. Vertical disparity is found to be highest in eastern, western and central regions. The eastern region shows highest level of incidence of poverty where as disparity in terms of percapita income is highest in the central region.

(Pradeep.K.Panda,2016): the author has analyzed the current scenario of regional disparity prevailing in the state Odisha and also various government initiatives that has been taken to address the same is critically analyzed by the author. Here he has found that the undivided districts of KBK has high incidence of poverty. Also some regions of southern and western Odisha are found to be socially and economically backward as compared to others. in spite of all the initiatives taken by both central and state government for the betterment of these regions, the spatial growth structure of the economy has not been eliminated successfully.

(Dubey, 2005): Author's study focuses on analyzing the regional disparity in terms of income and poverty between coastal and non coastal region of Odisha. He has also emphasized the point that after 1990s the disparities seen to have increased and the southern region having extreme high level of poverty has become poorer. The study also concluded that other indicators of human development such as health and education is also showing disparity and despite of wide range of government initiative there is no sign that the gaps are narrowing as well. Gender disparities and also disparity among different cast categories has been discussed by the author.

CHAPTER-3

Degree of Regional Disparity in Odisha: A Sectoral Analysis

3.1 Introduction

Today's world is divided into two unequal parts. One consisting of relatively small group of rich peoples/countries/regions and other of a large number of poor and economically backward ones. The problem of regional inequality exists in almost all the countries, states and even within the state in various degrees. While in the developed countries the problem is not robust and is confined to few underdeveloped areas those which are lagging in various geographical and natural resource endowment. But in developing countries or areas this is a serious threat because of the size and nature of the problem which results in a few developed areas contributing the largest share of GDP and a large portion of the region which are underdeveloped and lacking in basic amenities.

Regional disparity arises due to faster growth in some regions making others stay behind the former ones. This happens mainly because of the latter lagging in terms of growth of industries, employment and other socio economic activities which offer a huge rate of return. Problems related to regional disparity have had its fair share of attention of many economists, social scientists, planners, geographers etc for ages now. But for a matter of fact its seen and observed by many economists and researchers that the problem of regional disparity has increased rapidly after the post reform period.(Kumar & Subramanian, 2012) have observed that the economy of the nation has grown at a faster rate after the post reform period. While (Bhattacharya & Sakthivel, 2004) have found that the period has actually witnessed rise in regional disparities among different states of India.

Odisha being one of the poor states has also witnessed rapid growth during the post reform period, mainly in the tertiary sector of the state. The sectoral composition has changed quite a lot. But the benefit of the growth has not been equally distributed among the districts. Districts with their own geographical advantages and disadvantages will differ in growth rate in some

sectors but if the overall growth of some region is way better than others then there is a serious need of government intervention.

This chapter is dedicated to analyze whether the growth in Odisha during the post reform period is inclusive or exclusive to some regions. And this can be studied by analyzing the share of different regions in different sectors of the economy of Odisha. The chapter here is organized as follows. Secton-1 provides a picture of the overall economy and its sectoral composition. Section-2 provides with the analysis of regional disparity among the districts with respect to different sectors. Section-3 provides major findings of the analysis. The data and methodology used has been mentioned in the second chapter in the section of methodology.

3.2 Economy of the state

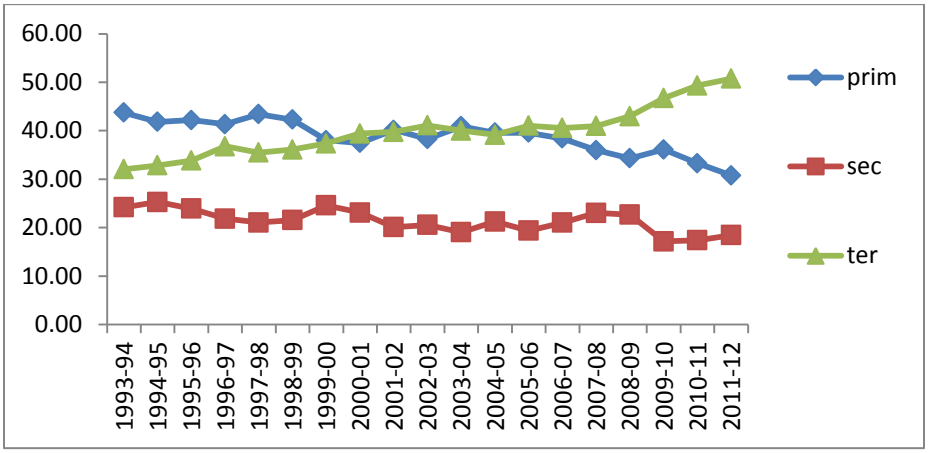
Table 3.2.1 Sectoral Share in NSDP of Odisha.

TIME	PRIM	SEC	TER
1993-94	43.74	24.21	32.05
1994-95	41.85	25.31	32.84
1995-96	42.19	23.95	33.85
1996-97	41.34	21.88	36.78
1997-98	43.42	21.07	35.51
1998-99	42.31	21.57	36.12
1999-00	38.02	24.61	37.37
2000-01	37.47	23.11	39.42
2001-02	40.16	20.10	39.74
2002-03	38.31	20.57	41.11
2003-04	40.92	19.06	40.02
2004-05	39.58	21.26	39.16
2005-06	39.58	19.39	41.04
2006-07	38.40	21.03	40.57
2007-08	35.98	23.05	40.97
2008-09	34.32	22.68	43.00
2009-10	36.11	17.17	46.72
2010-11	33.28	17.41	49.31
2011-12	30.79	18.46	50.75

Source: Author’s analysis from DESO data.

Table 3.2.1 shows the sectoral share of NSDP of the state. As we can see over the time period the share of primary and secondary sector is declining and the share of tertiary sector is increasing. Primary sector of the state shows a sharp decline in its share while tertiary sector shows sharp increase in its share, transforming the economy into tertiary sector based one.

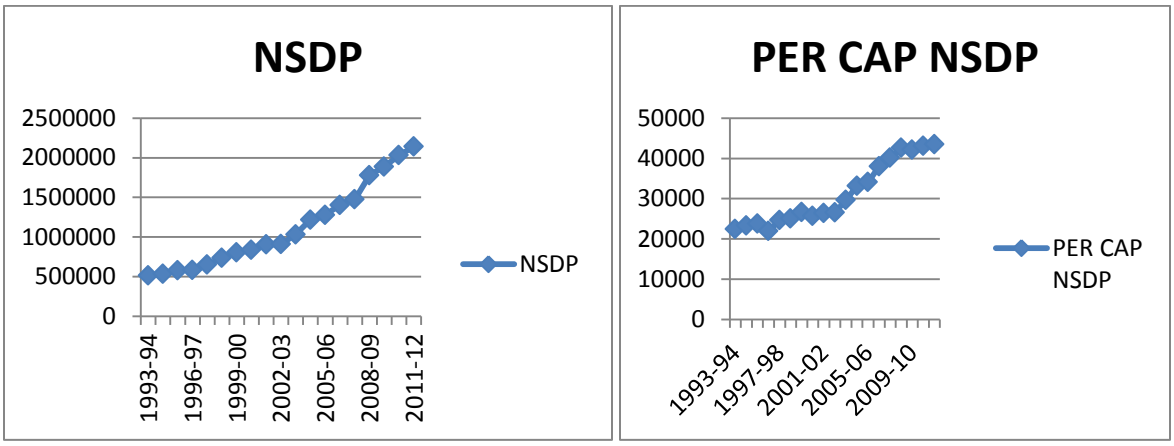
Figure 3.2.1 Sectoral Share in NSDP of Odisha.



Source: Author's analysis from DESO data.

As has been shown by the above figure, the share of tertiary sector in the total NSDP of Odisha has been raised over the period of time and constitutes around 50% share of the total economy. The share of agriculture sector is declining over the period and the secondary sector of the state is somewhat stagnant.

Figure 3.2.2 trend of NSDP and per capita NSDP



Source: Author's analysis from DESO data.

Both NSDP and Percapita NSDP of the state has increased sharply over the period of time but the question is whether the increase in income is distributed evenly among the districts or some reason is enjoying a considerably higher part of the increased income where as others are in poor state. To check whether the districts are at a high degree of disparity or not a detailed analysis has been done. For the purpose of further analysis the three revenue divisions classified by the government of the state has been taken. Central revenue division consists of Cuttack, Jagatsinghpur, Puri, Kendrapara, Jajpur, Khordha, Nayagarh, Balasore, Bhadrak and Mayurbhanj. Northern revenue division consists of Sambalpur, Bargarh, Jharsuguda, Deogarh, Balangir, Sonpur, Dhenkanal, Angul, Keonjhar, Sundargarh. Southern revenue division consists of Ganjam, Gajapati, Kandhamal, Boudh, Kalahandi, Nuapada, Koraput, Raygada, Nabrangpur, Malkangiri. To analyze the degree of regional disparity the share of each revenue division in different sectors of the economy has been closely observed. The entire data series i.e. 19 years of data has been divided into four data points to minimize the fluctuation in data. The four different time points are 1993-94 to 1997-98, 1998-99 to 2002-03, 2003-04 to 2007-08 and 2008-09 to 2011-12. The shares are shown in the figures in percentage term.

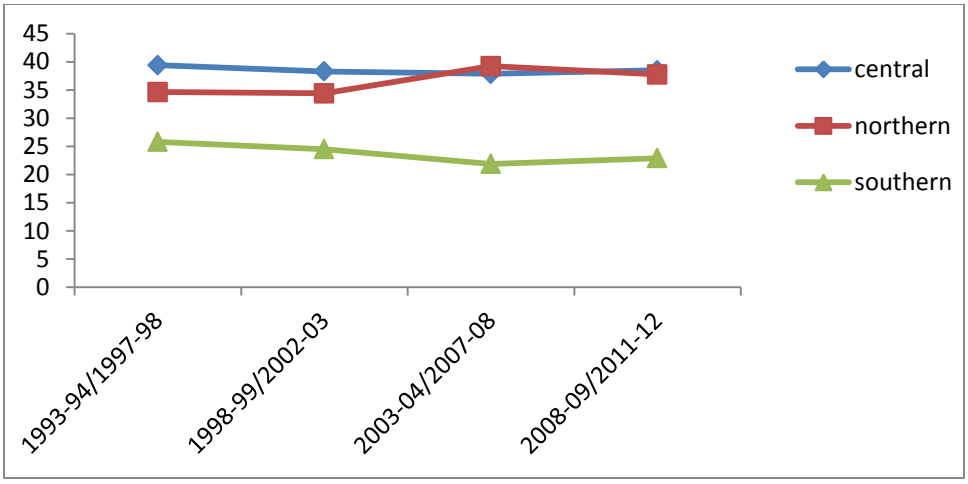
3.3 Degree of regional disparity among the districts.

Table 3.3.1: share of different regions in total NSDP of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	39.38551	38.28323	37.85702	38.47218
northern	34.63472	34.38572	39.22835	37.75554
southern	25.7934	24.48231	21.87746	22.90765

Source: Author's analysis from DESO data.

Figure 3.3.1: followed from table 3.3.1.



The contribution of all the regions together accumulates to the NSDP of Odisha. So it is important to know which region acquires what percentage share in total NSDP of Odisha to know if the regions are at an equal or unequal state. As the figure 1.1 shows in all four data points, share of southern region is much lower than the other two regions of Odisha. From 1993-94 to 2002-03 the differences of shares in total NSDP is slightly lower but between 2003-04-

2007-08 the share of northern and central region is almost double than that of the southern region, which clearly shows the level of disparity prevailing among the different regions.

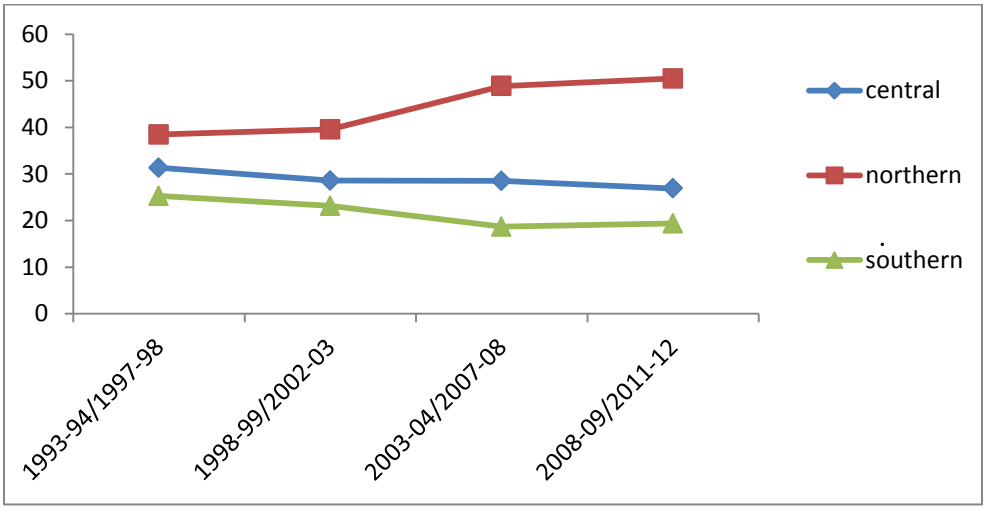
The study has also taken into consideration the share of different regions in the different sectors of Odisha's economy to see whether there lay significant differences in the share of different regions in different sectors of the economy.

Table 3.3.2 share of different regions in primary sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	31.30518	28.56298	28.48419	26.89188
northern	38.44181	39.5514	48.85419	50.48201
southern	25.26394	23.14602	18.67019	19.36548

Source: Author's analysis from DESO data.

Figure 3.3.2 followed from table 3.3.2



As has been shown in the above figure, northern revenue division is the highest contributor to the primary sector of Odisha, southern revenue division fails to catch up here as well. An increasing trend has been seen in case of northern division where as southern division shows a declining trend. Central revenue division more or less maintaining the same level of revenue share. For the period 2008-2012 northern revenue division contributed approximately 50% of the total primary

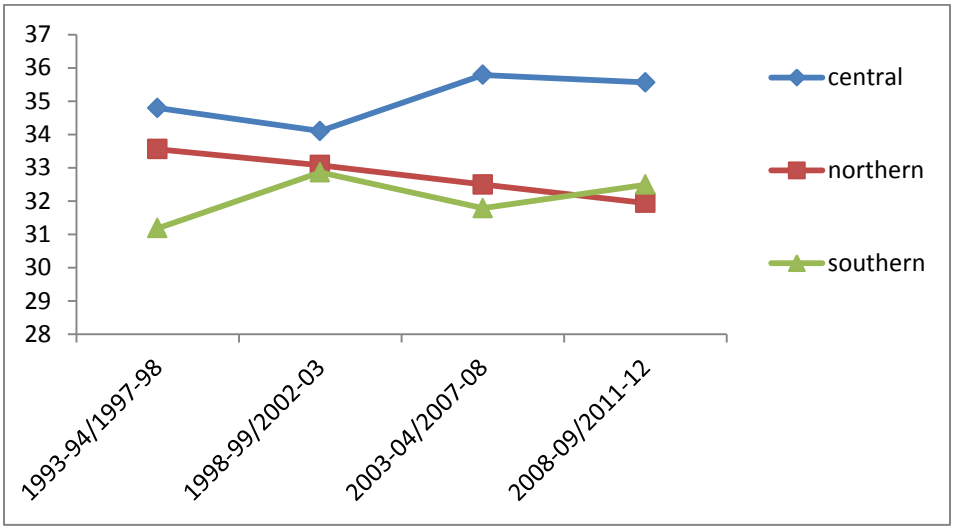
sector and the rest half came from the other two regions. Cuttack, Mayurbhanj, Jajapur are the three districts contributing around 50% of the total revenue coming from central revenue division and the rest 7 districts within that revenue division is responsible for other half. Likewise in northern revenue division Sundargarh, Angul and Kendujhar contributes around 35% of the data and surprisingly Kendujhar alone contributes 21% of the total output. Debgarh is the least contributor to this sector of the region. In southern revenue division Ganjam, Kalahandi, Kandhamal and Koraput are among the highest contributors.

Table 3.3.3: share of different regions in agriculture sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	34.79361	34.10108	35.78758	35.55977
northern	33.55554	33.07349	32.49584	31.941
southern	31.18322	32.8577	31.78316	32.489

Source: Author's analysis from DESO data.

Figure 3.3.3 followed from the table 3.3.3



Agricultural sector of Odisha is the most vulnerable one because almost every year some or the other natural calamity hits the states. Cyclone is so frequent for the state that the state has literally learnt how to handle it but the crop loss due to these natural calamities are irreversible so

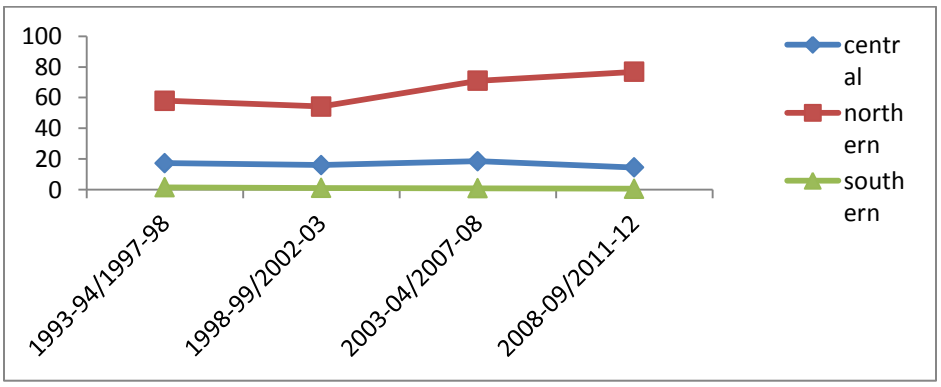
the agricultural sector shows highest fluctuation in the share of different regions here. The central and southern regions consisting of the coastal belt of Odisha is not following any particular trend where as a sharp decline in share of northern revenue division is seen here.

Table 3.3.4 share of different regions in mining and quarry sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	17.3759	16.03927	18.61844	14.56769
northern	57.95268	54.20038	70.95178	76.84403
southern	1.628263	1.184286	0.956591	0.706177

Source: Author's analysis from DESO data.

Figure 3.3.4 followed from the table 3.3.4.



Source: Author's analysis from DESO data.

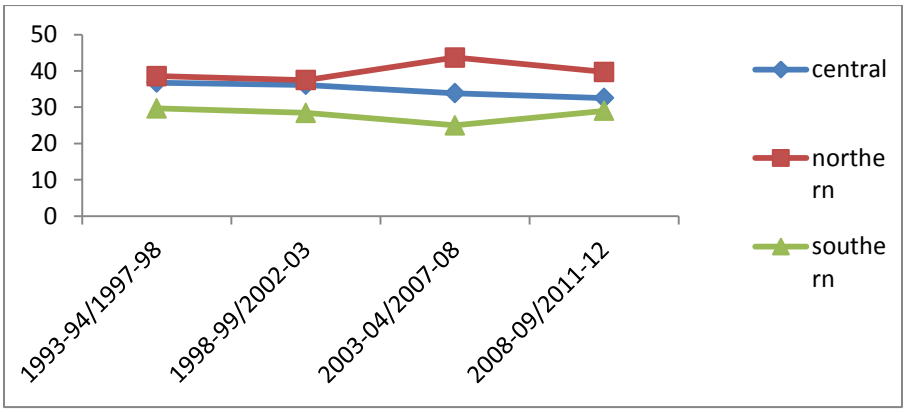
Odisha is known for its rich natural resource endowment. Mining sector of Odisha is one of the major contributors to the state's GDP. This sector's highest share comes from the northern districts and the lowest share is from the southern district. Northern revenue division consisting of maximum mineral rich district contributing highest throughout the data point. As this sector cannot be altered the share of the regions will more or less stay the same.

Table 3.3.5 share of different regions into secondary sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	36.74964	36.13411	33.85378	32.54664
northern	38.57364	37.47531	43.69266	39.6931
southern	29.65685	28.42163	25.0052	29.02699

Source: Author's analysis from DESO data.

Figure 3.3.5 followed from table 3.3.5.



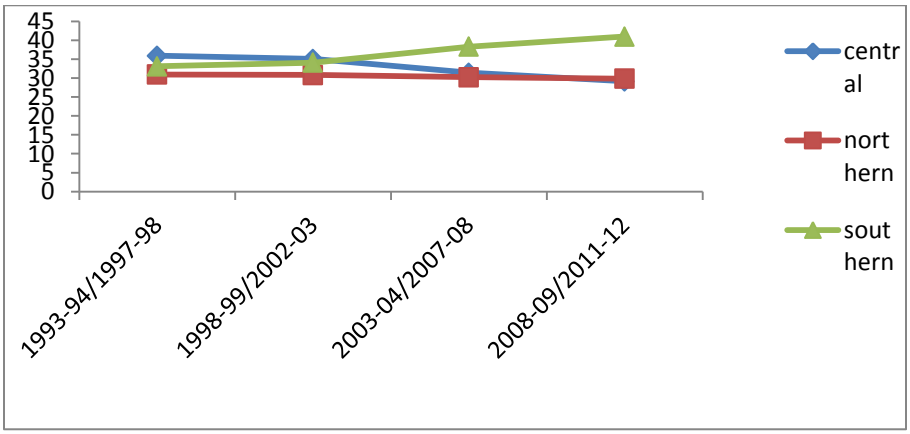
The data shows the secondary sector of Odisha is less imbalanced than the tertiary sector. While northern revenue division is acquiring the highest share(approximately 40%) in the total tertiary sector of the state, central revenue division is not much behind it. Southern revenue division contributes lowest to the secondary sector as well. Within the revenue divisions also there is wide disparity found. In central revenue division Mayurbhanj, Cuttack And Khordha has around 50% of the total share. In northern revenue division Angul, Sundargarh And Sambalpur are among the highest contributors and in southern revenue division Ganjam Kandhamal, Koraput contributes more than 50% of the total share of that revenue division.

Table 3.3.6 share of different region in construction sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	35.91145	35.07394	31.41257	29.14438
northern	30.96574	30.81519	30.26355	29.85922
southern	33.12	34.10984	38.32378	40.99614

Source: Author's analysis from DESO data.

Figure 3.3.6 followed from table 3.3.6.



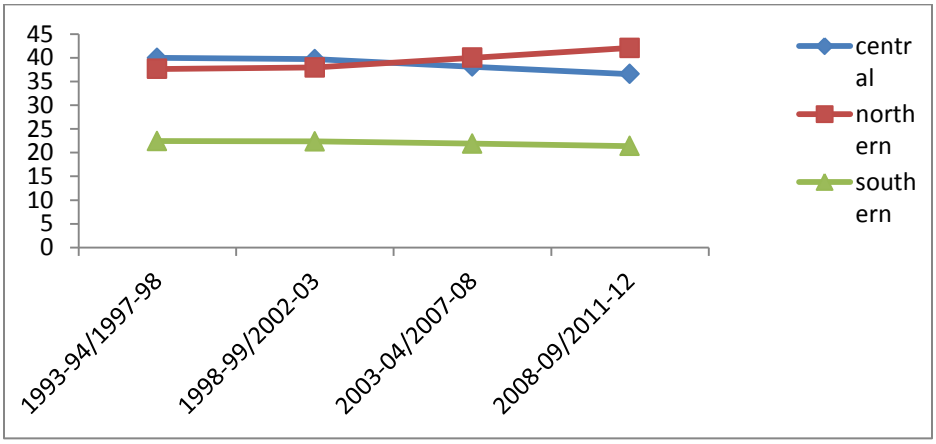
Construction sector of Odisha is the only sector where the share of southern sector has increased tremendously and has become the region which contributes highest to the construction sector of Odisha. The share of central revenue division is declining sharply where as the share of northern revenue division is more or less the same. Ganjam and Kandhamal districts are the highest sharer in the construction sector of the southern revenue division.

Table 3.3.7 share of different regions in els-gas-wtr sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	39.948	39.69071	38.0982	36.56886
northern	37.63035	37.95194	40.00764	42.05622
southern	22.42451	22.35687	21.89336	21.37475

Source: Author's analysis from DESO data.

Figure 3.3.7 followed from table 3.3.7.



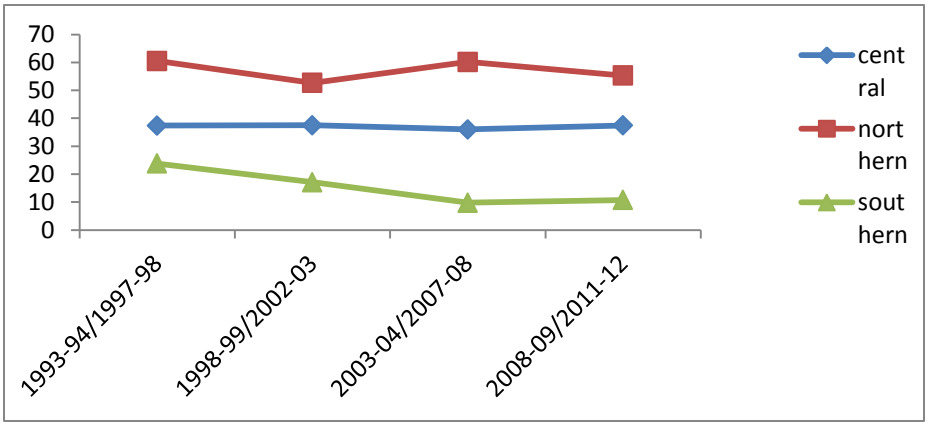
The share of southern region like any other region in tertiary sector is quite low here with no increasing trend throughout the year. Northern and central revenue division is showing different trends. While share of northern revenue division is increasing, the share of central revenue division is declining slowly.

Table 3.3.8 share of different region in manufacturing sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	37.37125	37.51736	36.01913	37.43625
northern	60.51936	52.66261	60.15591	55.32611
southern	23.83458	17.13177	9.816736	10.77302

Source: Author's analysis from DESO data.

Figure 3.3.8 followed from table 3.3.8.



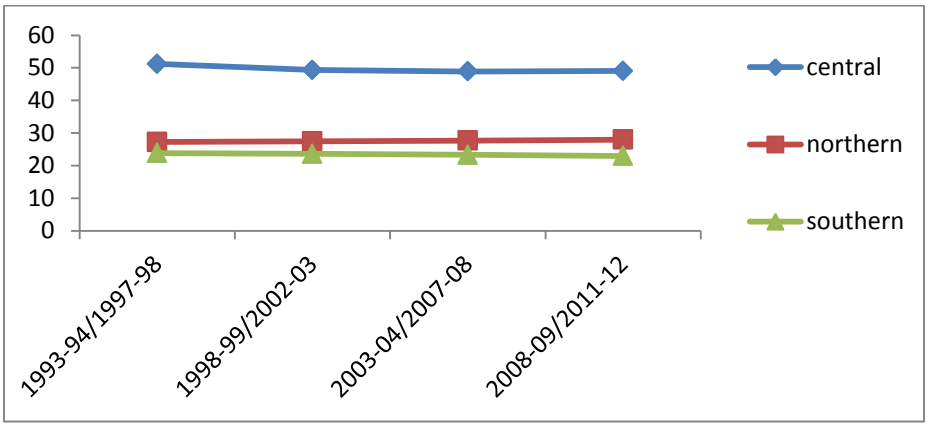
The manufacturing sector of Odisha is showing slightly a convergence trend. Share of central revenue division is more or less the same but here the highest sharer that is the northern revenue division is seen with a slightly declining trend. Whereas the southern revenue division which has the lowest share is showing an increasing trend.

Table 3.3.9 share of different regions in tertiary sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	51.20952	49.32221	48.90494	49.01529
northern	27.23314	27.41652	27.69958	27.98949
southern	23.82855	23.60204	23.33106	22.97582

Source: Author's analysis from DESO data.

Figure 3.3.9 followed from table 3.3.9.



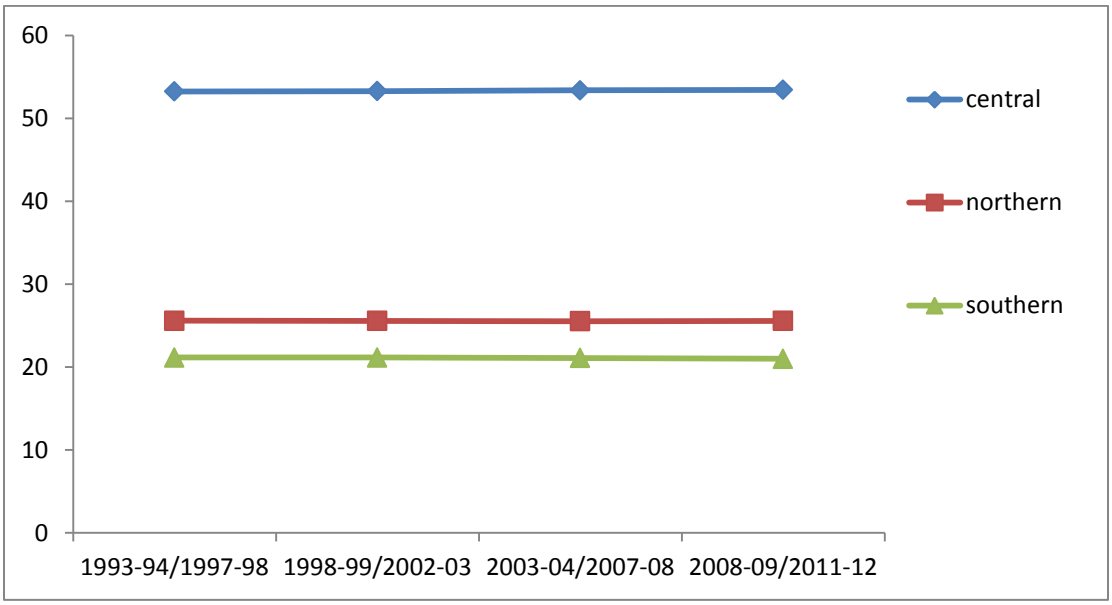
The tertiary sector is the major contributor to Odisha's gross domestic product and so is to the regional disparity as well. As the above figure shows, central revenue division acquires the major share in the tertiary sector of Odisha for all four data point. While approximately 50% of the revenue comes from central region the other half is contributed jointly by northern and southern region of the state. Within central revenue division also, Khordha and Cuttack district together acquires the biggest share of approximately 44% for all the data point. And as we can see from the above figure there is no sign of change in trend of share, and the central revenue division dominates all the other division here, which ultimately makes the central revenue division the major contributor in NSDP of Odisha. In northern revenue division Sundargarh, Kendujhar, Angul And Balangir are among the highest sharer and in southern revenue division Ganjam And Koraput together contributes more than 50% of the total output. Within revenue divisions also there is disparity found from the analysis.

Table 3.3.10 share of different regions in sector of public add of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	53.24384	53.26961	53.36648	53.43733
northern	25.59345	25.57308	25.53002	25.56344
southern	21.16171	21.15557	21.1024	20.99817

Source: Author's analysis from DESO data.

Figure 3.3.10 followed from table 3.3.10.



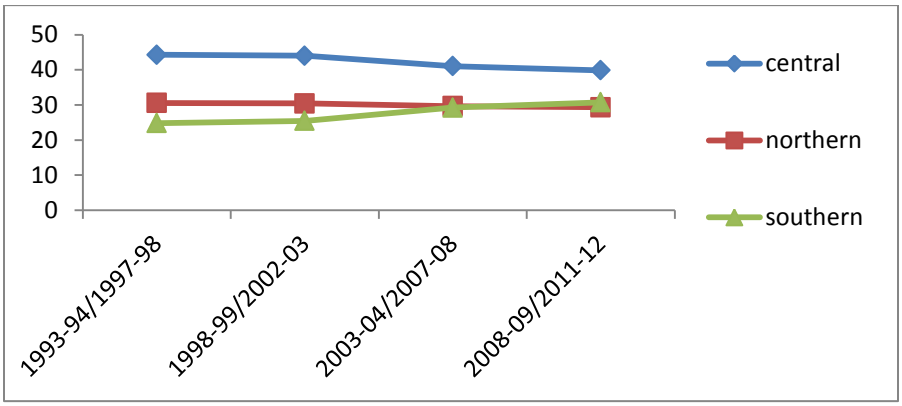
Public add. Sector does not show any different picture and is the same as the other service sectors of Odisha. Central revenue division being the highest contributor dominates the other two regions and other two divisions are maintaining their share for all the data points.

Table 3.3.11 share of different region in re-own, dwe-bs sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	44.26768	44.01513	41.06279	39.87515
northern	30.58766	30.42263	29.66575	29.3427
southern	24.812	25.45005	29.23385	30.75394

Source: Author's analysis from DESO data.

Figure 3.3.11 followed from table 3.3.11.



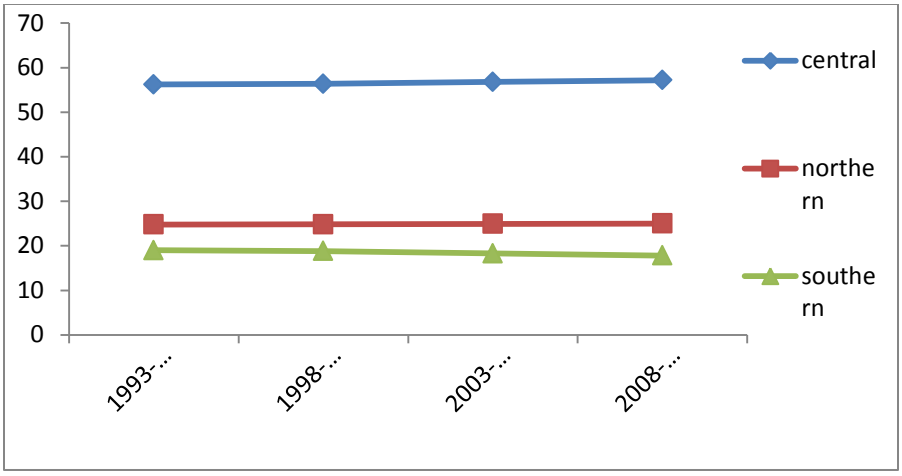
"Real estate, ownership of dwellings and business services", this sector seems to reduce the gap between the three divisions of the economy. The southern revenue division's share in this particular sector seems to increase while for the other two divisions its declining. This particular sector is showing a converging trend and seems like helping the regions to bridge the gap. Starting from 1993-94 the share of central revenue division is much higher than the other two but towards the end of the data series the share of the sector is declining while for southern revenue division its increasing, northern revenue division more or less maintaining its share throughout the period.

Table 3.3.12 share of different region in the sector of ban-ins of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	56.22151	56.34961	56.78415	57.17293
northern	24.78607	24.8134	24.9165	25.01484
southern	18.993	18.83804	18.29939	17.81268

Source: Author's analysis from DESO data.

Figure 3.3.12 followed from table 3.3.12.



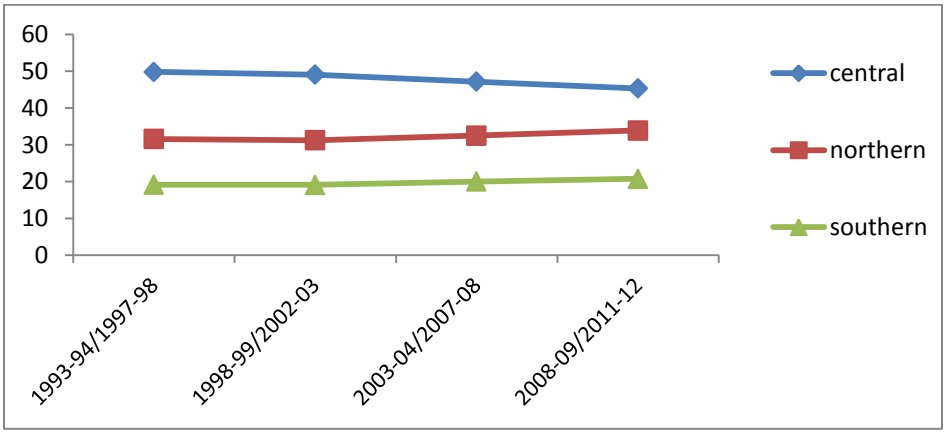
Banking and insurance sector of the state is one of the major contributors in the NSDP of Odisha. As has been shown in the figure central revenue division is the highest contributor to this sector of Odisha and southern revenue division is the lowest. Southern and northern revenue division together contribute around 40% of the total output where as central revenue division alone contributes around 60% of the same. Cuttack and Khordha are the two districts contributing around 20% of this biggest share of central revenue division. Malkangiri district of the southern region is contributing as low as 0.26% to the total output which clearly shows a difference of heals and heaven persisting here. The gap is neither reducing nor widening, its almost stagnant which is also a big problem.

Table 3.3.13share of different regions in trans-stor-comm sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	49.7627	49.04641	47.12772	45.29607
northern	31.5791	31.24265	32.49014	33.87975
southern	19.12629	19.10677	20.00868	20.73332

Source: Author's analysis from DESO data.

Figure 3.3.13 followed from table 3.3.13.



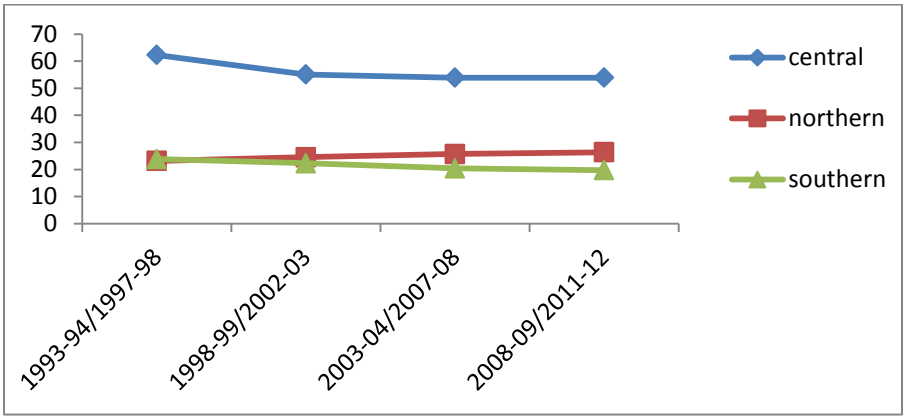
Transport, storage and communication sector of the state is seen with declining the gap between the regions. Central revenue division starting with the highest sharer seems to converge towards the middle. Both northern and southern revenue divisions share is increasing here.

Table 3.3.14share of different regions in tra-hot-res sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	62.26577	55.08905	53.88538	53.90672
northern	23.15882	24.55068	25.69532	26.34926
southern	23.80759	22.27166	20.42092	19.74483

Source: Author's analysis from DESO data.

Figure 3.3.14 followed from table 3.3.14.



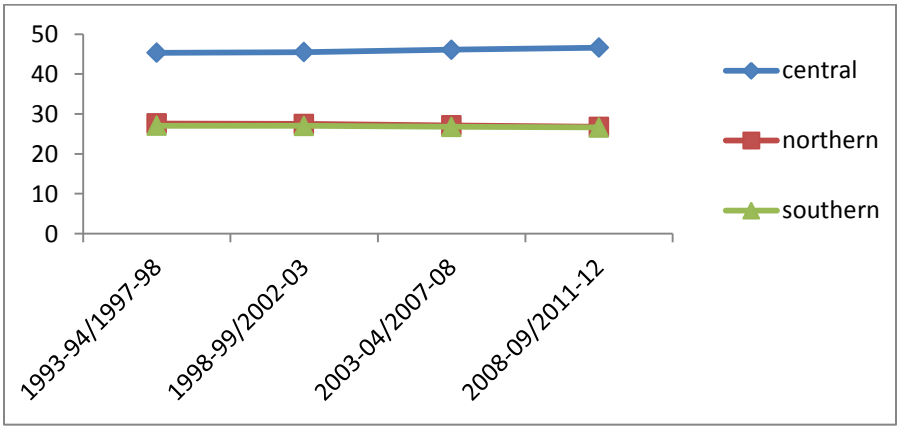
Trade hotel and restaurant sector being a part of the service sector is the highest sharer in that particular sector. Central revenue division like any other division in service sector is the highest sharer in this sector. Northern and southern revenue division being much below the central revenue division is not showing any increasing trend here. There shares are more or less stagnant.

Table 3.3.15 share of different regions in other services of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	45.33807	45.50063	46.09266	46.62161
northern	27.60488	27.49848	27.11511	26.77705
southern	27.05707	27.00084	26.79229	26.6013

Source: Author's analysis from DESO data.

Figure 3.3.15 followed from table 3.3.15.



Central revenue division being the highest contributor to the service sector of Odisha contributes around 45% to the other services of Odisha and also is the highest contributor of all. Northern and southern revenue divisions are going side by side and are not showing any increasing or declining trend here.

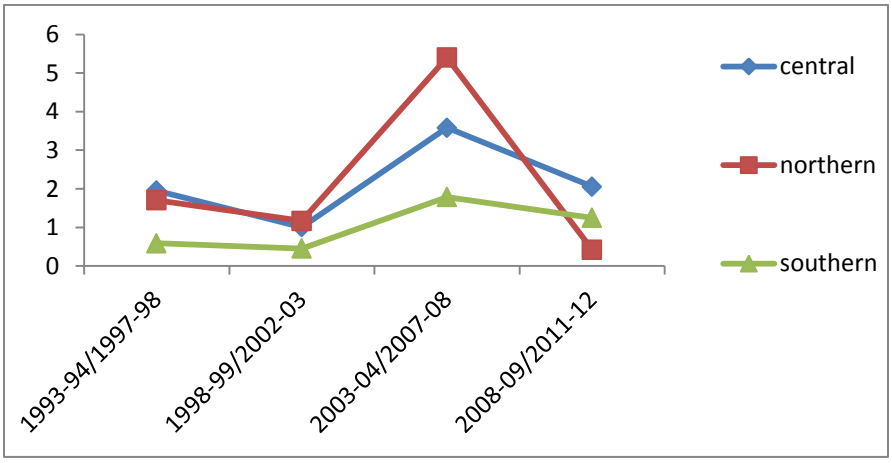
As has been seen from the above figures there exist a very high level of regional disparity among the regions of the state and this will decline if the growth of the regions which are lagging will increase and their contribution to growth of different sector will increase. To check that the study has calculated the share of different regions in the growth of different sectors of Odisha.

Table 3.3.16 contribution of different regions to growth rate of NSDP.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	1.953281	1.007358	3.582228	2.055137
northern	1.701434	1.16978	5.401823	0.420226
southern	0.589142	0.45136	1.785802	1.249181

Source: Author's analysis from DESO data.

Figure 3.3.16 followed from table 3.2.16.



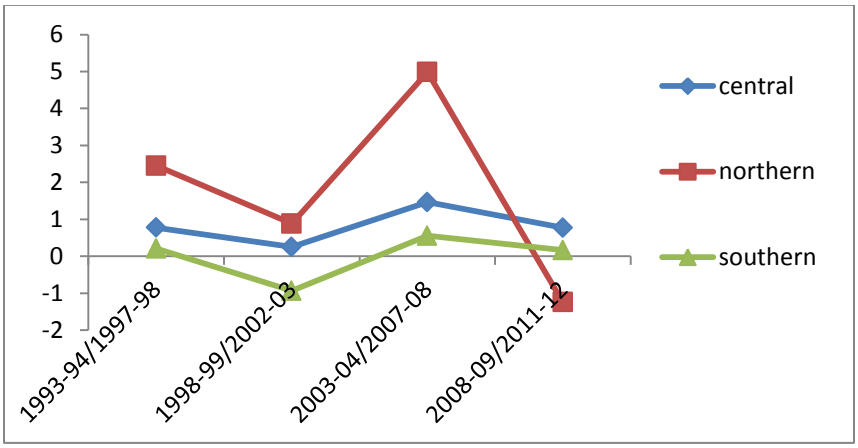
As we can see from the above figure contribution of neither of the region is following any particular trend. Where the southern revenue division is suppose to contribute the highest to bridge the gap, in actual sense nothing of that short is happening.

Table 3.3.17 contribution of different regions to the growth rate of primary sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
Central	0.774576	0.252521	1.464442	0.770826
northern	2.450948	0.882507	4.984162	-1.24311
southern	0.208845	-0.93522	0.553112	0.165999

Source: Author's analysis from DESO data.

Figure 3.3.17 followed from table 3.3.17.



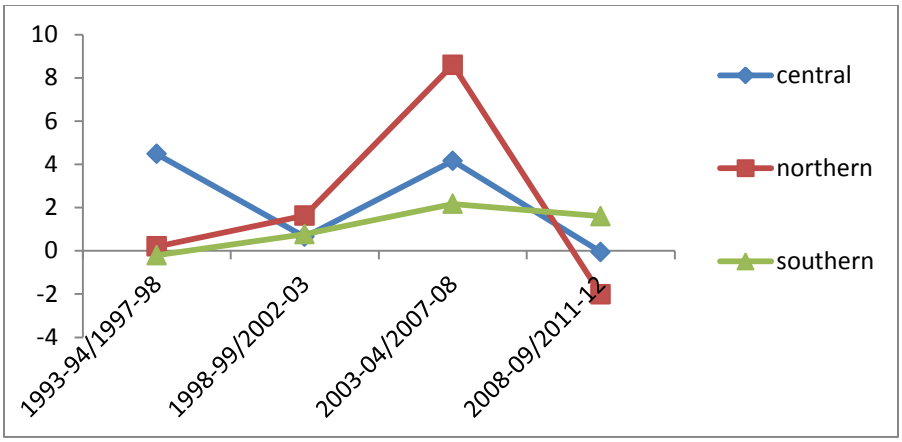
As has been stated before the primary sector of the state is the most volatile one mainly due to the volatility of agricultural sector. Due to natural calamities the agricultural sector's production varies tremendously years to years. As we can see the contribution of different regions to the growth of primary sector is also not following any trend. So it's hard to conclude which region's share in growth of primary sector is the highest and which one is contributing less.

Table 3.3.18 contribution of different regions in the growth of secondary sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	4.473794	0.646402	4.15737	-0.05783
northern	0.197481	1.628532	8.594595	-2.02273
southern	-0.20726	0.77131	2.16981	1.599252

Source: Author's analysis from DESO data.

Figure 3.3.18 followed from table 3.3.18.



Southern revenue division contributes positively into the growth rate of secondary sector of the state. Northern and central revenue division both are not following any particular trend here.

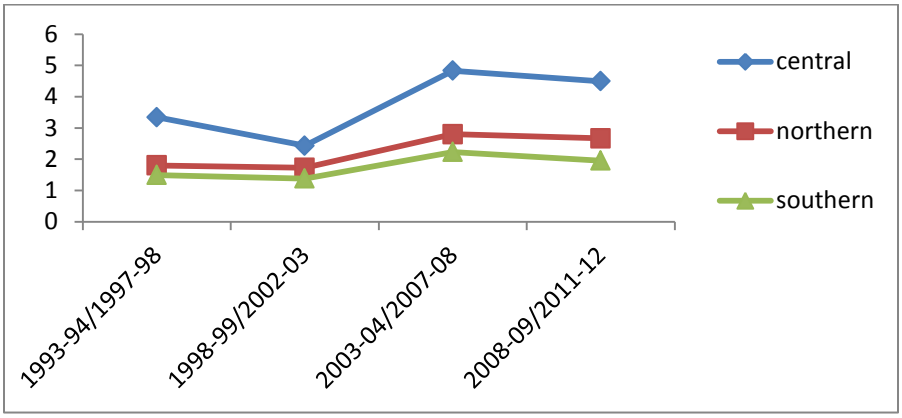
\

Table 3.3.19 contribution of different regions to the growth of tertiary sector of Odisha.

time period	1993-94/1997-98	1998-99/2002-03	2003-04/2007-08	2008-09/2011-12
central	3.340235	2.431865	4.830468	4.491648
northern	1.802318	1.724006	2.798072	2.664486
southern	1.491961	1.383925	2.228517	1.952146

Source: Author's analysis from DESO data.

Figure 3.3.19 followed from the table 3.3.19.



Tertiary sector is the only sector of the economy where all three revenue divisions show positive growth rate and contribute positively to the growth rate of that particular sector of the state. As we can see from the above figure central revenue division is the highest contributor in the growth rate of the tertiary sector and as we have seen earlier in our discussion central revenue is the highest sharer in the tertiary sector as well. Here this means in the tertiary sector the gap will widen further as central revenue division will continue to be the highest sharer.

3.4 Major Conclusions-

1) The growth rate of the economy is essentially backed by growth in tertiary sector because the tertiary sector of the state contributes more than 50% of the total revenue.

2) Major share holder in the NDDP of the state is the central revenue division and the lest contributor to the NDDP is the southern revenue division. Within revenue division also there are high sharer and low share holders. In central revenue division also Khordha, Cuttack, Jajapur and Mayurbhanj are the highest share holder and Nayagarh is the lowest sharer. In case of northern revenue division Sundargarh, Kendujhar and Anugul are the high sharer and in southern revenue division Ganjam district alone contribute the larger share in NDDP of the state. From the analysis we can simply conclude that regional disparity in terms of economy's income is not limited to regions alone, within revenue divisions also there is high disparity.

3) Central revenue division grabs the greater share in NDDP of the state due to its higher share in the tertiary sector of the economy. The tertiary sector of the state is the highest contributor to the NDDP of the state and also is the highest contributor in terms of disparity.

4) The share of southern revenue division is the lowest in all three sectors, including their sub sectors, except for construction and re-own, dwe-bs sector of Odisha.

5) As the agricultural sector of the state faces most fluctuation due to natural calamities almost every year, the share of the regions are not following any trend here. But still southern revenue division's contribution is below the other two division's contribution.

6) The contribution of different revenue division in the growth of the NSDP is not following any trend and is same for the sectoral growth as well.

7) There is massive regional disparity among the different regions of the state and the disparity is not showing any declining trend.

8) In terms of Percapita income taking 1993-94 as a base period for analysis if we see, central revenue division has the lowest Percapita income, even though it's the highest contributor to the NSDP of the state. And this is because of the high density of population in the major cities of the state. As most of the tertiary sector are located in the twin city of the state most of the people from the periphery areas migrate

for job and better education. So even if central revenue division contributes highest in the total revenue of the state its percapita income is not high.

9) Northern revenue division consisting the highest no. of mineral resource districts and low population density is the richer one. Southern revenue division also is going along side central revenue division.

10) While the Percapita income of all the regions are showing increasing trend, the most industrialized and mining areas are growing at a faster rate.

CHAPTER-4

Analysis of Trend of Convergence/Divergence among Districts of Odisha.

4.1 Introduction

Every country, whether developed or underdeveloped has regional disparity to some extent. Even states and districts have regional disparity within it. It's factual that it is not possible for every region to grow at the same speed or maintain the balance every time. But if the gap or the disparity is widening day by day then that has to be taken care of. As we have discussed in our previous chapter, the state faces a high degree or regional disparity in terms of share of different regions in different sectors of the state. The southern revenue division is found to be performing low in most of the sectors. And the central revenue division is found to be the highest contributor in the tertiary sector and the sub sectors of the tertiary sector of the state. But as we know if the contribution of the underdeveloped region into the growth of different sectors where there share is low will increase over the time period then the gap will be bridged. In other words increased share of the underdeveloped regions to the growth rate of the sectors will make sure that over the time period the share of all the regions in different sectors will be equal. But there is no particular trend that shows the share of southern revenue division to be increasing in the growth rate of different sectors. Now this arises the question whether the different revenue divisions are converging or diverging from the steady state growth rate.

As we know the convergence literature started with the seminal work of Solow (1956) followed by Barrow and Martin (1995) where they have explained that there is negative relationship between the initial level of income and the growth rate of per capita income. In other words, the country or region with high level of income initially will grow at a slow rate than those with low income and in the long run the gap will be minimized between the rich and the poor and they will converge. The basic assumption that Solow took to explain this is that there will be diminishing returns to physical capital. The rich economies are generally capital abundant and the poor ones are not so diminishing returns from capital will make the growth process slow for

the rich economies. Hence the poor economy will move at a faster rate to reach the steady state growth rate.

- In economics the convergence literature generally shows two meanings. First is called sigma convergence which occurs when dispersion of levels of income across economies reduces over the time period. Secondly the "beta convergence" is a situation where the poor economies grow faster than the rich ones. Again beta convergence is of two type- conditional beta convergence, which is more logical in the sense that it allows the important factors like savings, population etc to vary but on the other hand absolute convergence occurs simply when the growth rate of an economy declines as it reaches near the steady state. Here to see if the districts or the divisions of the states are converging or diverging the study has used absolute convergence and not conditional convergence. The sigma convergence has been checked by taking the dispersion of Percapita income among the districts. As has been already mentioned earlier in the chapters the classification of government of different revenue divisions has been taken and the percapita income is the parameter here to prove the debate. The percapita trend growth rate has been calculated by taking simple ordinary least square regression for the period between 1993-94 to 2011-12. The growth of percapita income obtained has been regressed with the log of initial income (initial income is the percapita income in 1993-94) to get the regression coefficient. The sign of the coefficient shows whether the districts are converging or diverging. If the coefficient is positive, that means the high income districts or regions are growing at a faster rate but if the sign of the coefficient are negative then the poor region are growing faster and there will be convergence if the coefficients are significant.

The chapter is organized as follows. The section 1 shows the trend of change in percapita income of districts. Section 2 deals with the estimation of absolute convergence among districts. Section 3 deals with the estimation of sigma convergence and finally section 4 explains the major findings of this particular chapter.

4.2 percapita income over the period 1993-94 to 2011-12.

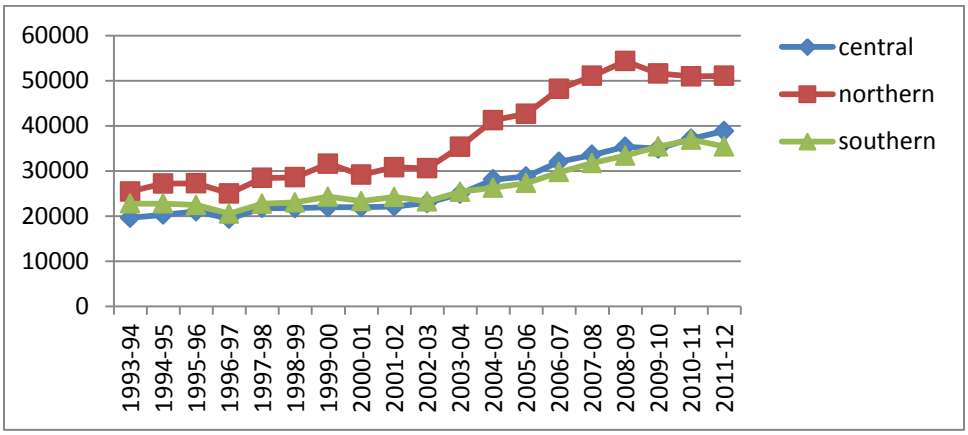
Table 4.2.1 percapita income of different regions.

time	Central	northern	Southern
1993-94	19607.49	25437.1	22757.35
1994-95	20291.19	27187.91	22769.16
1995-96	21034.43	27225.3	22434.25
1996-97	19403.9	25010.71	20527.82
1997-98	21775.77	28442.09	22733.87
1998-99	21740.17	28571.03	23019.28
1999-00	21965.35	31596.26	24292.94
2000-01	21940.35	29140.25	23283.92
2001-02	22143.53	30816.47	24227.36
2002-03	22881.9	30579.37	23246.27
2003-04	24923.88	35359.27	25345.58
2004-05	28077.95	41230.2	26268.25
2005-06	28755.49	42658.32	27311.84
2006-07	32002.74	48142.78	29714.21
2007-08	33545.23	51059.83	31723.21
2008-09	35337.91	54325.55	33368.05
2009-10	34923.32	51576.99	35372.94
2010-11	37106.27	50960.69	36918.68
2011-12	38829.54	51047.97	35438.4

Source: Author's analysis from DESO data.

The Percapita income of the northern revenue division has doubled between 1993-94 to 2011-12. Even for the central revenue it has almost doubled but for southern revenue division it has increased but not at the extent it has increased for the other two regions.

Figure 4.2.1 Percapita income of different revenue divisions.



Source: Author's analysis from DESO data.

As we can see from the above table and figure the richer region among all is the northern revenue division. The southern and the central revenue divisions are almost at the same level in terms of per capita income. It is strange to notice here that the highest contributor region to the NSDP of the state is also one of the poor regions in terms of Percapita income. And this could be because of some districts performing extremely well like Khordha and Cuttack and some standing at the bottom such as Kendrapara and Nayagarh. The Percapita income off all the regions is showing an increasing trend but the growth for northern revenue division is seem to be noticeably higher than the other two regions here. By taking 1993-94 as a base, we can see the Percapita income of the states varies a lot. And the growth rate calculated by the leaner regression method also shows some interesting results here.

Table 4.2.2 initial Percapita income of districts.

Percapita Income	1993-94
Odisha	22469.44
Angul	24604.89
Baleshwar	17406.16
Bargarh	19833.17
Bhadrak	16474.91
Balangir	19857.72
Baudh	18528.37
Cuttack	24558.73
Debagarh	26914.08
Dhenkanal	25543.48
Gajapati	26913.39
Ganjam	20925.13
Jagatsinghapur	21784.34
Jajapur	22350.18
Jharsuguda	31170.53
Kalahandi	18155.92
Kandhamal	28510.43
Kendrapara	15993.96
Kendujhar	25866.81
Khordha	22993.36
Koraput	26630.65
Malkangiri	27343.32
Mayurbhanj	19762.71
Nabarangapur	18241.28
Nayagarh	17812.4
Nuapada	20666.45
Puri	16938.15
Rayagada	21658.56
Sambalpur	29785.75
Sonapur	18081.49
Sundargarh	32713.13

Source: Author's analysis from DESO data.

If we classify the economy of Odisha into high, medium and low income districts taking 1993-94 Percapita income as base we will see that out of 10 low income districts 6 falls under central revenue division. The classification has been made by arranging the districts Percapita income in descending order. To give equal weightage the top ten districts are taken as the high income group the middle ten has been taken as the middle income group and the bottom ten has been taken as the low income group. Low income group- Mayurbhanj, Baudh, Nabarangapur,

Kalahandi, Sonapur, Nayagarh, Baleshwar, Puri, Bhadrak, Kendrapara. High Income Group- Sundargarh, Jharsuguda, Sambalpur, Kandhamal, Malkangiri, Debagarh, Gajapati, Koraput, Kendujhar, Dhenkanal. Medium income group- Angul, Cuttack, Khordha, Jajapur, Jagatsinghpur, Rayagada, Ganjam, Nuapada, Balangir, Bargarh.

As we can see from the table 4.2.2 the gap between the bottom district in terms of Percapita income and the top district is huge. The high income district Sundargarh has Percapita income almost twice the amount Kendrapara has. And this shows the prevalence of high level of income inequality among the districts.

Table 4.2.3 sector wise trend growth rate of districts.

districts	Primary	secondary	Tertiary	Percapita income
Anugul	3.93	4.20	8.24	6.56
Baleshwar	0.43	0.43	6.62	3.64
Bargarh	-0.07	2.77	6.85	2.98
Bhadrak	1.30	-0.42	6.71	3.94
Balangir	1.13	3.09	6.60	3.85
Baudh	1.94	6.07	5.85	3.98
Cuttack	0.98	2.01	5.55	4.14
Debagarh	-1.41	3.02	5.70	1.60
Dhenkanal	-0.21	-2.11	7.76	2.91
Gajapati	-0.16	2.72	6.10	2.66
Ganjam	0.19	2.19	6.40	3.82
Jagatsinghapur	1.73	4.16	6.62	4.52
Jajapur	6.06	4.12	6.82	6.07
Jharsuguda	3.15	5.15	5.90	4.95
Kalahandi	1.08	2.29	6.40	3.35
Kandhamal	1.93	6.24	6.23	4.64
Kendrapara	0.31	0.55	6.40	3.37
Kendujhar	9.64	4.03	7.17	8.66
Khordha	1.10	2.09	6.01	4.60
Koraput	1.87	0.54	6.46	3.13
Malkangiri	-1.51	0.78	5.33	0.46
Mayurbhanj	0.69	3.39	5.53	3.15
Nabarangapur	-1.09	1.19	5.63	1.77
Nayagarh	0.09	-1.19	6.62	2.83
Nuapada	-0.58	2.86	6.63	2.57
Puri	0.33	-1.44	6.56	3.72
Rayagada	1.89	1.11	6.43	3.32
Sambalpur	0.20	2.96	6.76	3.49
Sonapur	1.38	2.85	6.45	3.27
Sundargarh	6.13	3.64	6.24	5.54

Source: Author's analysis from DESO data.

Table 4.2.3 shows that the maximum growth in percapita income over the period has happened in Kendujhar, Anugul, Jajapur and Sundargarh districts. And the lest growth took place in Malkangiri, Nabarangapur and Debgarh district. All the districts shows positive growth rate in tertiary sector. And also the growth rate is almost equal for the districts and very slight variation

is seen here. For primary and secondary there are districts which shows negative growth as well. Kendujhar being one of the highest growing district is also showing highest growth in primary sector and also in tertiary sector its growth is commendable. While the convergence hypothesis shows that the growth in the underdeveloped areas are suppose to be more than the developed region to make the convergence happen, nothing like that is seem to happen in case of Odisha. The districts with high initial income are showing high growth while for the low income districts the growth rate is not up to that level. This result itself is a question whether the districts are going to converge or diverge? Is the study period showing any trend of convergence? Which sector is contributing in which direction to the trend its following? To answer these questions the study moves forward to check the convergence hypothesis.

4.3 test of convergence among the districts of Odisha.

Table 4.3.1: convergence/ divergence of percapita income among the districts of Odisha.

Model	Equation	Statistics value
Model-1	PCI growth= -11.850 +1,56(initial income)	T stat= (-0.84), (1.11) Prob value= (0.40), (0.27) R square= 0.04
Model-2	PCI growth= -.122 - .00(initial income) +.517(PCI growth primary) + .119(PCI growth secondary + .552(PCI growth tertiary)	T stat= (-0.09), (-1.17), (9.26), (1.94), (2.89) Prob value=(0.93), (0.25), (0.00), (0.06), (0.00) R square=0.88
Model-3	PCI growth== -2.56 - .00(initial pci primary) -.00(initial pci secondary) + .00(initial tertiary) + .460(PCI growth primary)+ .179(PCI growth secondary) +.811(PCI growth tertiary)	T stat=(-2.61), (-1.80), (-2.21), (3.99), (12.49), (4.38), (6.12), (-2.61) Prob value=(0.01), (0.08), (0.03), (0.00), (0.00), (0.00), (0.00), (0.01) R square=0.95

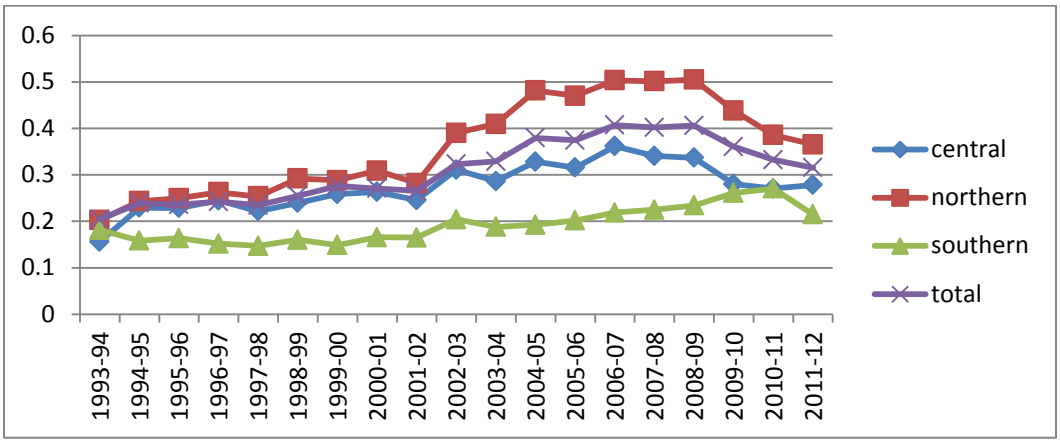
Source: Author's analysis from DESO data.

In the first model(table 4.3.1) an ordinary least square regression has been estimated between the growth rate of PCI among districts of Odisha and the log of initial income (1993-94). As we can see in the above table, the coefficient of the regression fitted is positive which means the richer regions are growing at a faster rate than the poorer one but also the R-square of the model is very insignificant. So we cannot say whether the districts are converging or diverging. To get a high

R-square we have added more variable to the right hand side of the equation. The model-2 of the equation shows a higher value of R-square and the coefficient of the model is negative which shows that the districts of the states are converging. Here in the second model the growth of Percapita income has been regressed with the initial income, growth of PCI of primary sector, growth of PCI of secondary and growth of PCI of tertiary sector. The model shows negative coefficient but the sectoral growth shows positive coefficient and the model is not significant as the probability value is not significant. Then in the third model the initial income of each sector and the growth rate of each sector have been regressed with the growth of Percapita Income. As there is high correlation among the initial income and the growth rate of that particular sector the result is very significant with a high R-square. The model shows negative coefficient which simply means the districts of the states are converging. The coefficient of both primary and secondary sector initial income shows negative sign which means the districts which has initial low Percapita income of primary and secondary sector are converging but the tertiary sector coefficient is positive and significant which means its only the tertiary sector where the problem mainly lies.

Now to check for the sigma convergence among the districts of Odisha the standard deviation and covariance of Percapita income among the different revenue divisions has been calculated.

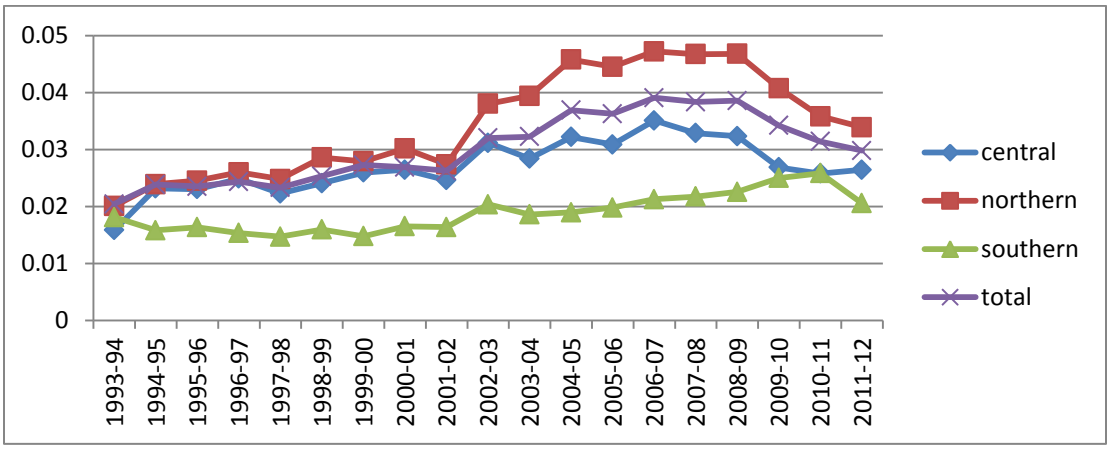
Figure 4.3.1Standard deviation of Percapita income among districts of Odisha.



Source: Author's analysis from DESO data.

As we can see in the above figure the standard deviation among central, northern, southern and the total districts of the state started to increase after 2001-02 but then by the end of the study period the standard deviation is declining slowly which means the districts are converging. The dispersion of income is not increasing and the revenue divisions with low initial income are growing consistently while others growth rate is slowing down.

Figure 4.3.2Covariance of Percapita income among districts of Odisha.



Source: Author's analysis from DESO data.

Here also we can see the covariance of percapita income among the districts of the state is declining over the time period, showing a converging trend among the districts of the state.

4.4 Conclusion

This particular chapter shows that even though there is high degree of variation in Percapita income among districts the districts are converging and the sector specific result also shows a positive sign here. It's only the tertiary sector where the districts are not converging. The study has found absolute or unconditional beta convergence and also sigma convergence among the districts and different revenue divisions of the state. It's only the tertiary sector which needs to be taken care of to get over all better growth rates for the state.

CHAPTER-5

SUMMARY AND CONCLUSION

5.1Summary-

The first chapter explains deeply the need of the study and the profile of the state which explains why it has been taken as the study area. From the first chapter it is clear that the regional disparity among the districts is normal but its not something that should be left as it is if the gap widens further. As the chapter explains the findings of other seminal work by researchers, it is so evident that the Sectoral composition of the nation and even the state has changed after the post reform period. It has become a tertiary sector led growth of the economy and those areas or regions with high growth in tertiary sector are growing at a faster rate than other creating regional imbalance within the economy. Odisha being one of the underdeveloped state has also reaped the profit of high growth rate and is growing at a high rate in recent years. Mainly the tertiary sector of the state shows highest growth rate and those districts which contributes most to the tertiary sector are growing at a much faster rate than others and are creating more regional imbalance. Most of the tertiary sectors are situated in twin city of Cuttack and Bhubaneswar making them the highest contributor to the tertiary sector. The first chapter specifies the objectives of the study and the importance of it.

Second chapter gives insight into the literatures available in the area or regional disparity and convergence debate that's going on between the economists and researchers for decades now. The chapter has deeply explained the findings of other studies in the concerned field. There are literatures which advocate that the post reform period has given positive results and there is no problem of regional disparity that has been aggravated due to that. Also there are studies argues to find the divergence of states after the post reform period. Also the literatures that are found are mainly concerned about interstate disparity and very few people have focused on intra state disparity. So to overcome this problem the study has focused on intra state disparity in a poor state Odisha. The methodology and sources of data has been clearly mentioned in this chapter.

The next chapter deals with the analysis of the degree of regional disparity that prevails among the different regions of the state and the share of different regions in different sectors of the state has been analyzed closely. The study has also calculated the contribution of different regions in growth rate of different sectors. The findings of the study has been presented in that specific chapter as well.

The following chapter discusses the second objective of the study, that is the measurement of convergence and divergence of the districts of the state. The objective has been fulfilled by analyzing percapita income of the districts and sector specific percapita income has been taken into consideration. The absolute convergence and sigma convergence have been tested and the result is been summarized at the end of the chapter.

The final chapter summarizes the whole thesis and also provides the major conclusions of the study. This particular chapter explains about the limitation of the study and also gives policy suggestion taking into consideration the whole analysis of the objectives.

5.2 Conclusions-

The conclusion of the study can be summarized in two or three lines but the major findings of the study are essential to look into for the policy suggestion. So the major findings of the study are as follows-

1) All regions of the economy are not equal sharer in the NSDP of the state. Central revenue division is the highest contributor in the total NSDP of the state and southern revenue division is the lowest contributor.

2) Tertiary sector growth rate is the highest for the state and also it is highest for the central revenue division which is also the highest contributor to that specific sector and to the total NSDP of the state.

3) Being the highest contributor to the tertiary sector of the state the central revenue division is not the richer region. Rather northern revenue division is the rich one here.

4) The share of two particular districts is the highest and most in the tertiary sector of the central revenue division which simply shows there also prevails regional disparity even within that revenue division.

5) In terms of percapita income the southern and central revenue division is at almost same level while southern revenue division is one of the poor one in terms of NDDP.

6) In percapita income from tertiary sector all the districts and regions shows positive growth rate. But for primary and secondary sector there are some districts which shows negative growth rate as well.

7) The dispersion of percapita income among regions is found to be declining, showing sigma convergence among the three revenue divisions of the state.

8) The study has also found absolute or unconditional beta convergence among the districts of the state in primary sector and secondary sector. But for tertiary sector the districts shows divergence trend.

We can conclude from the above analysis that the districts of the state are converging despite of having very high degree of regional disparity in some sectors. The problematic area is found to be the tertiary sector which is making some districts better off than others.

5.3 Policy suggestions-

1) Government of Odisha should look at the areas with lest tertiary sectors and make them better off in that sector, as tertiary sector is one of the major contributors to GDP and disparity as well.

2) There are some districts which are showing negative growth rate in primary and secondary sector, government also needs to focus on those districts to eliminate the problem for achieving a positive growth rate.

3) The low income districts which are lacking in overcoming the difficulties needs serious attention.

4) For inclusive and sustainable growth investment in infrastructure is necessary. The underprivileged regions need more development in infrastructure to attract more investment.

5) Agriculture in Odisha has potential for balanced growth and increasing the GSDP but that is only possible if it is given adequate priority. More focus should be given for the development of the agricultural sector if balanced growth is to be achieved in Odisha.

6) structural change in economy should follow the transition from agriculture to industry to services sector. But in case of Odisha the pattern of structural change has been such that they have jumped from agriculture to service sector directly. More focus should be given to manufacturing sector for balanced growth.

BIBLIOGRAPHY

a.Indira, M. R. (June 2002). Estimation Of District Income & Poverty In Indian States. *Economic And Political Weekly* , 2171-2177.

Ahluwalia, M. S. (2000). Economic Performance Of States In Post Reform Period. *Economic And Political Weekly* , 1637-1648.

Ahluwalia, M. S. (May 2000). Economic Performance Of States In Post Reforms Periods. *Economic And Political Weekly* , 1637-1648.

Bhattacharya, G. (June 27- July 10, 2009). Intr State Disparity In Government Expenditure: An Analysis. *Economic And Political Weekly* , 231-237.

Buddhadeb Ghosh, S. M. (June 1998). Economic Growth And Regional Divergence In India. *Economic And Political Weekly* , 1623-1630.

Chakraborty, A. (2009). Some Normatively Relevant Aspects Of Inter-State & Intra-State Disparities. *Economic And Political Weekly.* , 179-184.

Chatterjee, M. M. (July 1967). Trends In Distribution Of National Income 1950-51 To 1965-66. *Economic And Political Weekly* , 1259,1261-1263, 1265-1268.

Choudhury, U. D. (December 1992). Inter State And Intra State Variations In Economic Development & Standard Of Living. *Economic And Political Weekly* , 2651-2655.

Choudhury, U. D. (December 1992). Inter State And Intra State Variations In Economic Development And Standard Of Living. *Economic & Political Weekly* , 2651-2655.

Dholakia, R. H. (November 1989). Regional Aspects Of Industrialisation In India. *Economic And Political Weekly* , 2563-2567.

Dholakia, R. H. (September 27- October-3, 2003). Regional Disparity In Economic & Human Development In India. *Economic & Political Weekly* , 4166-4172.

Dipankar Dasgupta, P. M. (July,2000). Growth And Inter State Disparity In India. *Economic And Political Weekly* , 2413-2422.

Diwakar, D. (June 2009). Intra Regional Disparities, Inequality And Poverty In Uttarpradesh. *Economic And Political Weekly* , 264-273.

Dubey, A. (2005). Poverty, Disparity And The Development In Orissa. *Economic And Political Weekly* , 2321-2329.

Dubey, A. (2009). Intra State Disparities In Gujarat, Haryana, Kerala, Orissa And Punjab. *Economic And Political Weekly* , 224-230.

Dubey, A. (2009). Intra State Disparities In Gujarat, Haryana, Kerala, Orissa And Punjab. *Economic And Political Weekly* , 224-230.

Gupta, A. K. (December 1996). Migration, Urbanisation & Regional Inequality. *Economic & Political Weekly* , 3391-3393, 3395-3398.

Gupta, C. D. (June 2009). Implications Of Regional Disparity For Finance Comission Devolutions. *Economic And Political Weekly* , 176-178.

Gupta, P. P. (June 2009). Political Implications Of Inter State Disparity. *Economic And Political Weekly* , 185-191.

Haldar, A. R. (June 27- July 10, 2009). An Investigation Into The Inter District Disparity In West Bengal, 1991-2005. *Economic & Political Weekly* , 258-263.

Kiran Mor, S. D. (September 2017). Regional Disparities In Socio Economic Development In Post Reform Era: A Study Of Indian Economy. *Interntional Journal Of Engineering Technology Science & Research* , 946-954.

Kumaran, K. J. (January-June, 2010). Economic Reforms And Income Convergence/Divergence In Regional India. *Indian Economic Review,New Seriel Vol.45* , 29-48.

Luddan, D. (May 2012). Spatial Inequality And National Territory:Remapping 1905 In Bengal & Assam. *Modern Asian Studies* , 483-525.

Mahalnobis, N. B. (March 1967). Regional Disparities In Household Consumption In India. *Taylor & Fransis* , 143-161.

Mallick, J. (2017). Public Expenditure, Private Investment And Income: Evidence In Indian States. *The Journal Of Developing Areas* , 181-205.

Michelle Baddlley, K. M. (2006). Divergence In India : Income Differentials At The State Level, 1970-97. *The Journal Of Development Studies* , 1000-1022.

Minocha, A. (May 1983). Regional Disparities In India: Some Basic Issues . *Social Scientist Vol.11 No.5* , 51-57.

Mohanty, B. (February 2009). Regional Disparity In Agricultural Development Of Maharastra. *Economic And Political Weekly* , 63-69.

Nayar, G. (February 9-15, 2008). Economic Growth And Regional Inequality In India. *Economic & Political Weekly* , 58-67.

Nayar, G. (2008). Economic Growth And Reional Inequality In India. *Economic And Political Weekly* , 58-67.

Nirvikar Singh, L. B. (February 2003). Regional Inequality In India : A Fresh Look.

Ohlan, R. (December 2013). Pattern Regional Disparity In Socio Economic Development In India: District Level Analysis. *Social Indicators Research, Vol. 114* , 841-873.

Panda, P. K. (December 2016). Regional Disparity In Development Of Odisha Economy: Assesment Of Schemes , Issues And Challenges. *Orissa Economic Journal, Vol. 48* , 124-132.

Raju, S. (June 2012). Growth Across States In The 2000s: Evidence Of Convergence. *Economic & Political Weekly* , 76-79.

Ravallion, G. D. (2011). Has India's Economic Growth Become More Pro Poor In The Wake Of Economic Reforms? *The World Bank Economic Review* , 157-189.

Sahay, P. C. (1996). Regional Economic Growth And Convergence In India. *Finance And Development-English Edition* , 49-52.

Sakthivel, B. B. (March 2004). Regional Growth & Disparity In India: Comparison Of Pre & Post Reform Decades. *Economic & Political Weekly* , 1071-1077.

Sakthivel, S. K. (November 24-30, 2007). Reforms & Regional Inequality In India. *Economic & Political Weekly* , 69-73, 75-77.

Shanmugam, R. J. (August 2007). Strategy For Poverty Reduction & Narrowing Regional Disparities. *Economic And Political Weekly* , 3475-3481.

Shetty, S. (December 2003). Growth Of Sdp And Structural Changes In State Economies:Inter State Comparision. *Economic & Political Weekly* , 5189-5200.

Richardson, H. W. (1973).Regional Growth Theory. Mcmillan Press, London.

Richardson, Harry W. (1973). Regional Growth Theory. The Macmillan Press Ltd. London, Pp. 14-15.

Hirschman A. O. (1958). The Strategy Of Economic Development. Yale University Press, New Haven, Conn.

Hirschman A. O. (1961).The Strategy Of Economic Development. Yale University Press, New Haven, Conn.

Hirschman, A. O. (1961).The Strategy Of Economic Development. Yale University Press, New Haven.

Perroux (1970). A Note On The Concept Of "Growth Pole" In Devid L. Mckee Et Al (Eds.). Regional Economics-Theory And Practice, The Free Press, Illinous, P 74.

NATIONAL SEMINAR ON

POLITICS, DEVELOPMENT AND MARGINALISED GROUPS IN ODISHA

ORGANIZED BY

PG DEPARTMENT OF POLITICAL SCIENCE
RAYAGADA AUTONOMOUS COLLEGE,
RAYAGADA, ODISHA

25th and 26th June 2019

SPONSORED BY

Indian Council of Social Science Research

INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH, NEW DELHI
MINISTRY OF HUMAN RESOURCE DEVELOPMENT.

CERTIFICATE OF PARTICIPATION/PRESENTATION

This is to certify that Ms. Anita Ponda

has participated/presented a paper titled

Exclusive Growth & Regional Disparity : Study of a poor state Odisha

in Oral/Poster mode, in the National Seminar : Politics, Development and Marginalised Groups in Odisha held at Rayagada Autonomous College, Rayagada during June 25th and 26th June, 2019.

Organizing Secretary | Convenor/Co-Convenor | Patron

DISPARITY AND CONVERGENCE DEBATE: A DETAILED STUDY OF ODISHA

by Anita Panda

Submission date: 29-Jun-2019 11:17AM (UTC+0530)
Submission ID: 1147871482
File name: Thesis_Anita_PDF.pdf (1.24M)
Word count: 15944
Character count: 80344

DISPARITY AND CONVERGENCE DEBATE: A DETAILED STUDY OF ODISHA

ORIGINALITY REPORT

8%	6%	4%	3%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	interstatecouncil.nic.in Internet Source	1%
2	isec.ac.in Internet Source	1%
3	ijetsr.com Internet Source	1%
4	Submitted to Christ University Student Paper	1%
5	Priyabrata Sahoo, Kirtti Ranjan Paltasingh. "Examining Growth–Inequality Nexus in Post-reform Odisha: A Sectoral Decomposition Analysis", Journal of Development Policy and Practice, 2019 Publication	<1%
6	Submitted to Jawaharlal Nehru University (JNU) Student Paper	<1%
7	www.moderngeografia.eu Internet Source	