

## HETEROGENEITIES IN THE STRUCTURE OF SERVICES SECTOR ACROSS MAJOR INDIAN STATES: AN EMPIRICAL ANALYSIS

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### Abstract

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*India's Services Sector is burgeoning: A sign of an economy on the high growth path .It has become the mainstay of the growth process and has emerged as the most dynamic Sector of the Indian economy. The Uniqueness and sudden growth pattern of Services Sector of India needs to be recognised understood and analysed with its long term implications for long term development strategy and policy. The variation across these states and territories is enormous in regard to physical geography, culture, and economic conditions. Some states have achieved rapid economic growth in recent years, while others have languished, hence studying these variations becomes imperative .So under the light of this scenario, an in-depth study in the structure of Services was done, which includes studying the interstate variations in the service's structure and also the services' Sectoral variations within states of India.*

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Keywords : Services sector, engine of growth, Inter state variations, Subsectors of services, Structure.

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## SECTION I: INTRODUCTION

Today the Services Sector has emerged as the most dynamic sector of the world economy, contributing to almost one-third of the world gross value added, half of world employment, one-fifth of global trade and more than half of the world foreign direct investment flows. In their pioneering work, Clark (1940), Kuznets (1957), and Chenrey (1960) brought out economic development as a three-stage process, wherein Primary, Secondary and Services Sector dominates the economic activity in that sequence. The analysis in terms of such stages of development, however, has been challenged in the recent literature and the experience of many developing economies today has become increasingly divorced from this traditional depiction of an economy.

One of the important issues of interest is the role played by the Service Sector in the growth process of developing countries. The issue has assumed even greater importance in view of increasing international transactions in Services and the growing liberalisation of Services in developing countries taking cues from developing countries like Brazil, China. In Brazil a boom in the Services Sector occurred in the mid-90s and since then its (dominant) share has remained somewhat unchanged. In China, both Manufacturing and Services are growing at a similar pace, while the former remains the dominant Sector. In India, the Service Sector crossed 50%-share around 2000, and, has been growing faster than Industrial and Agriculture. Services Sector being a dominant Sector globally, has a major share in the total employment. As per the International Labour Organization's (ILO) Global Employment Trends 2014, Services accounted for more than half of total global employment growth of 1.4 per cent in 2013 over 2012.

Table 1.1 shows the international scenario of the Services Sector in respect to the contribution to GDP and employment share of Services for 2014. These countries show the high percentage share of Services Sector in GDP. This makes Services Sector the most developed Sector and also the most significant Sector. It can be seen that not only in Gross Domestic Product does Services has a dominant share but also in employment Services plays a major part. The growing share of Services Sector in GDP has led to increase in the importance of the Services Sector. When we look at the employment these countries the share in employment of Services Sector is quite high, crossing the 75% mark. One thing which can be observed is that in India, there is also a mismatch between the share of Services in total

GDP and the corresponding share of Services in total employment. But still Services Sector is hailed as the new engine of growth.

Country	2014 (%Employment)	2014 (% GDP)
Australia	69.5	70.5
Brazil	77	71
China	47	47.7
France	74.90	78.9
Germany	71	69
Russia	66	60.0
<b>India</b>	<b>28.7</b>	<b>53</b>
Japan	69.1	72
United Kingdom	79	78.4
United States	81	78.4

Source: Computed from UN National Accounts Statistics for GDP/GVA, World Bank database for employment and World Trade Organization (WTO) database for services trade. Notes: Rank and share are based on current prices (2014); construction Sector is excluded in services GDP

### Service Sector scenario in the Indian Economy

One of the characteristic features of the Services Sector in the Indian Economy that is seen presently is the 'Tertiarisation' of the economy, which means, the mean share of Services Sector to the Gross Domestic Product (GDP) is continuously increasing. Rapid growth of Service Sector is not unique to India, it has become a prominent Sector in the economies of most developed and developing countries, in terms of its contribution to GDP, trade and employment Service Sector remains the key driver of India's economic growth, contributing almost 66.1 per cent of its gross value added (GVA) growth in 2015-16.

Sector	GDP (2014)	Employment (2009-10)
Services	52.1	25.2
Industry	30.1	21.5
Agriculture	17.8	52.3

Source: CSO and NSSO

According to the CSO estimates (2014), and NSSO 66<sup>th</sup> round the share of Services in the Gross Domestic Product (GDP) of India was 52.1% in 2014. Table 1.2 shows the share of all three Sectors in the GDP of India for the year 2014. The preponderance of Services Sector

over Industry and Agriculture and Allied activities is not a new phenomenon for the Indian economy. It can be clearly seen that Services has been the major contributor to GDP in India.

### **Growth rates of the main Sectors of the Indian Economy**

The annual and decadal growth rates for the Services Sector in India show that Services Sector has emerged as the fastest growing Sector. In the economy it is to be noted that while Agriculture and Industry Sectors have experienced phases of deceleration, stagnation and growth. The Tertiary Sector has shown uniform growth trend from 1950 onwards. The recent experience of the Indian economy shows that it was the growth of Services Sector which imparted resilience to the economy, even in times of Agriculture shocks and during downturns in the Industry.

Year/Sector	Annual (%) Growth Rate	Decadal Average (%) Growth rate
Services	10	9.09
Industry	5.6	6.87
Agriculture	1.1	3.79

Source: Central Statistics Organisation(CSO)

Table 1.3 depicts the growth rates of the three Sectors in India. It clearly indicates that Services Sector is showing the maximum annual growth. The annual growth rate of Services Sector was 9.09% in 2014. The annual growth rate of Primary Sector was 1.1% and that of Industry Sector was 5.6%. The average decadal growth rate (2004-05 to 2013-14) of three main Sectors in India is also shown. The table 1.3 shows that the Tertiary Sector has the highest decadal growth rate (9.09%). Secondary Sector has recorded the second highest decadal growth rate (6.87%) and Agriculture Sector has the lowest growth rate (3.97%). This emphasises the importance of Services Sector in India, which holds the key growth rate in comparison to the other main Sectors.

**Table 1.4**  
**Percent share of 3 main Sectors in NSDP and total employment in 20 major states**

S.No	STATE	% Share Agriculture Sector		% Share Secondary Sector		% Share Tertiary Sector	
		NSDP	Employment	NSDP	Employment	NSDP	Employment
1.	Andhra Pradesh	23	57	14	22	63	22
2.	Assam	20	70	18	9	62	21
3.	Bihar	18	63	16	17	66	20
4.	Chhattisgarh	20	77	31	12	49	11
5.	Gujarat	12	56	32	20	56	24
6.	Haryana	15	46	23	28	63	22
7.	Himachal Pradesh	18	63	32	22	50	15
8.	Jammu & Kashmir	20	53	22	23	58	25
9.	Jharkhand	16	48	31	33	53	19
10.	Karnataka	13	58	22	19	65	23
11.	Kerala	7	27	16	32	77	36
12.	Madhya Pradesh	28	70	21	16	51	13
13.	Maharashtra	7	55	24	18	69	27
14.	Orissa	17	63	20	21	63	16
15.	Punjab	21	47	26	28	54	26
16.	Rajasthan	20	55	28	28	53	17
17.	Tamil Nadu	7	46	24	29	69	24
18.	Uttarakhand	20	60	18	21	61	19
19.	Uttar Pradesh	9	58	32	24	58	19
20.	West Bengal	15	46	15	27	70	26
21.	Mean	16.3	55.6	22.25	21.7	60.5	21.25
22.	C.V.(%)	33.1	19.6	25.9	36.1	12.5	26.49

\*Source: CSO & NSSO

## **Contribution of Services Sector to the Net State Domestic Product**

Since India is a union of states, therefore the importance of Services Sector becomes even more clearly when the pattern of growth is being looked across the states. The percent shares in NSDP of the three main Sectors of the Indian economy were studied at an aggregate level. Table 1.4 shows the contribution of the Primary, Secondary and Tertiary Sectors to the Net State Domestic Product (NSDP) and to the Total Employment in the 20 major states of India. In the analysis the mean percent share of all three Sectors can be examined along with their co-efficient of variation is examined. The mean percent share of Primary share in Net State Domestic Product was 16.3%, for Secondary Sector it was 22.25% and that of Tertiary Sector was 60.5%. This indicates that Tertiary Sector is the highest contributor to Net State Domestic Product (NSDP) as compared to the Primary and Secondary Sectors. It was observed that Kerala (77%) had the highest share in Services in NSDP, followed by West Bengal (70%) and Chhattisgarh (49%) had the lowest share in Services Sector.

India's relatively "jobless" Service Sector growth is unlike the experience of other countries, where the Service Sector has also tended to gain a larger share of employment over time along with growth in GDP. Table 1.4 also shows the contribution of Services Sector to the employment in 20 major states along with Primary Sector and Secondary Sector. It can be observed that Primary Sector still holds a large share of employment in the country, followed by the Secondary Sector. The Tertiary Sector also has a considerable share of employment, but relatively less in comparison to the other two sectors. Kerala had the highest employment in Services with a share of 36%, followed by Maharashtra (27%). The lowest share in Total employment in Services Sector was seen in the state of Chhattisgarh (11%) and Madhya Pradesh (13%).

In the light of the above discussion, uniqueness and growth pattern of Services needs to be recognised, understood and analysed with its implications for a long term development strategy and policy. Since this Sector is a major contributor to the GDP and it is unanimously expected by all as the main engine of growth, so its structure needs to be explored. To analyse and derive a policy for the growth of any Sector it becomes imperative to look inside the Sector i.e. what does it actually comprise of or what are its main constituents. This prompted us to study the structure of Services Sector and also the Interstate Variations in the structure of Services Sector. Services Sector is a highly non-homogeneous comprising a wide range of activities.

Very few studies have been conducted on the structure of Services Sector and even lesser on the differences in the structure of this Sector across the various states in India. The Interstate differences

in the structure of Services in India would bring out the differences in the Inter Sectoral growth of the various subsectors of Services Sector. Also, to analyse the reasons behind this enormous increase in the amount of services, it has become necessary to study the performance of each subsector of Services in India, which can be done by studying the structure of Services Sector in the states. Structure of a Sector in an economy can be studied in two ways: by analysing its contribution to NSDP or employment of that Sector in the country. In the present study, the interstate variations in the structure of Services Sector is being analysed by taking the percent share of each subsector in the Total Services as a percent share of Net State Domestic Product(NSDP).

In order to study the pattern and extent of the interstate variations in the structure of Services Sector across the 20 major states, it was very important to have a bird's eye view of the existing literature on this subject, so as to identify the gaps in the study and plug the gaps to some extent. A striking feature of India's development is that growth in Indian Service Sector is not accompanied by additional employment opportunities. Employment generation in Services Sector remains low; and new opportunities are created for labour with certain 'skills', which may have a serious implication on income inequality. With increasing importance of private Sector, nature of employment in Services would also change. The existing literature shows that Services Sector is one of the areas, where India needs to focus on sharply, to increase its share in the global Services trade. It is also imperative that the Industrial and Agricultural Sectors also grow rapidly for the sustainable development of economy. There is a large growth potential of growth in Indian service economy provided that deregulation of Services Sector continues. It was highlighted in the given studies that Services Sector faces a number of barriers, which makes it difficult for the Sector to reach its full potential and contribute to overall growth. Reform measures should be implemented which will enable Services Sector to not only grow at a fast pace but also create quality employment, enhance efficiency, productivity and attract investment. Looking at the Indian states, the nature and determinants of the Services Sector growth is not the same all over. Inter-regional divergences in development of Services in labour cost, infrastructure facilities etc. has proven to be very influential in developing Services. Measuring the contribution of Services to the Indian economy is a challenging task because it presents problems not encountered in the primary and secondary Sectors. Several studies have been undertaken on the growth of Services Sector in India and internationally, but very few have been done pertaining to the structure of Services Sector. On in depth study of the various literatures on the Services Sector, it was found that no study has been conducted on interstate variations in structure of the Services Sector taking the latest NSDP data for the year 2013-14, being the latest of its kind. A lot of research has been done on cross-country analysis of the Services Sector, but studies on the interstate variations in the Services Sector in a

particular country were not available in plenty. Even if studies on the structure of Services Sector were found, it was confined to a particular state only. Studies on the changes in the structure of employment in the Services Sector were found but fewer studies were found on the structure of Services Sector by taking Net State Domestic Product within a country. Thus, it becomes clear from above that there exist some research gaps. A detailed study of the Inter-state analysis in the structure of Services Sector should prove beneficial for policy implications. The study is a modest attempt on this regard and can be considered a pioneering comprehensive work on the interstate variations in the structure of Services Sector across the major 20 states in India.

## **SECTION II: DATA AND METHODOLOGY**

In the present study, the structure of Services that has been followed by us is given as follows. The Services Sector covers a wide range of activities that can be broken down into the following subsectors, further in the study smaller subsectors were clubbed and the six subsectors considered were as: 1)Transport, Storage and Communication = (% share of Railways + % share of Transport by other means +% share of Storage + % share of Communication in total services) 2)Trade, Hotels and Restaurants 3)Banking and Insurance. 4) Real Estate, Ownership of Dwellings and Business Services 5) Public Administration 6) Other Services. The subsectorsRailways, Transport by other means, Storage, Communication were clubbed and used as Transport, Storage and Communication.The NSDP values of Railways, Transport by other means, Storage, Communication, when clubbed were more or less equivalent to the aggregate value of Transport, Storage and Communication. Hence, we omit these four subsectors and consider one subsector which is only Transport, Storage and Communication.

In the present study, Secondary data was used, which has been compiled from various secondary sources. Data for Net State Domestic Product was collected for the 20 states of India from the Central Statistical Organisation of India. The data source for employment was taken from the 66th round of National Statistical Survey Organisation (NSSO), taken for 20 states of India. Other important data was extracted from World Bank Database and Databook for Planning Commission 2014, The RBI Bulletin, various Economic Surveys of India and Handbook of Statistics on Indian Economy (RBI) were also used for data analysis purpose. The period of study was taken to be 2013-14, with a base year of 2004-05. This year was chosen because data was available for the same base year i.e. 2004-05.

To study the level of Interstate variations in the Services Sector, Dummy Variable Regression technique was also introduced. With the help of intercept and differential intercept coefficient of the dummy variables, the variations in the states regarding the Services Sector were done. Analysis



of Variance (ANOVA) was used to test for the significance of variations in the Services Sector within states and other divisions of the economy other than states.

### **SECTION III: INTERSTATE VARIATIONS IN THE STRUCTURE OF SERVICES SECTOR**

India's 29 states and seven union territories are at different stages of demographic and economic evolution. The Per capita Gross Domestic Product of states, a marker of their inhabitants' affluence or deprivation, reasonably depicts the variation in living standards and market potential across India. In a country as large as India, interstate and regional variations are inevitable. Variations in geographical terrain that affect agricultural productivity, differences in climatic conditions and differentials in the availability of crucial raw materials, among other factors, affect a state's performance relative to that of others. Due to this extent of diversity in Indian states, it is unlikely that the structure of Services Sector, which has remained the most vibrant sector in terms of contribution to national and state incomes, would be uniform. Thus, in this first empirical analysis, the pattern and extent of interstate variations in the structure of Service Sector has been examined.

#### **Interstate variations in the structure of Services Sector**

In this section we analyse the extent and pattern of the structure of Services Sector. Before we go to the interstate variations in the structure of Services Sector, we first bring out the variation in the Service Sector across the states. Table 2.1 shows the interstate variations across the 20 major states in India. It was observed that Kerala shows the largest percent share in Tertiary Sector in NSDP at 77 %. West Bengal had the second highest percent share in Tertiary Sector in NSDP with 70 %, followed by Tamil Nadu and Maharashtra with 69% respectively.

Himachal Pradesh and Chhattisgarh rank lowest in the percent share in the total Net State Domestic Product with 50% and 49%. On observing the Co-efficient of Variation (C.V.), the extent of interstate variations was found to be very low. The co-efficient of variation was 12.5% in the total Services in 2013-14 which much lesser compared to Agriculture Sector (Co-efficient of variation 33.1%) and Secondary Sector (Co-efficient of variation 25.9%) which was given in table 1.4 in the previous section. In the table 2.1 the rankings of the states are based on their percent share in total services. So we can conclude from the above table that across the states Services Sector is growing more uniformly compared to Agriculture Sector and Secondary Sector. Therefore now we shall explore the interstate variations within its various subsectors and try to find whether the structure is also similar across the states.

TABLE 2.1			
Percent share of Service Sector across 20 Indian states			
S.no	STATE	Rank	Percent share of Services Sector in NSDP
1	KERELA	1	77
2	WEST BENGAL	2	70
3	TAMIL NADU	3.5	69
4	MAHARASHTRA	3.5	69
5	BIHAR	5	66
6	KARNATAKA	6	65
7	ANDHRA PRADESH	8	63
8	HARYANA	8	63
9	ODISHA	8	63
10	ASSAM	10	62
11	UTTAR PRAESH	11	61
12	UTTRAKHAND	12.5	58
13	JAMMU AND KASMIR	12.5	58
14	GUJRAT	14	56
15	PUNJAB	15	54
16	RAJASTHAN	16.5	53
17	JHARKHAND	16.5	53
18	MADHYA PRADESH	18	51
19	HIMACHAL PRADESH	19	50
20	CHHATISGARH	20	49
	Range		28
	Minimum		49
	Maximum		77
	Mean		60.5
	Coefficient of Variation (%)		12.5

**(Table 2.2)**  
**INTER STATE VARIATIONS IN THE STRUCTURE OF SERVICES SECTOR OF MAJOR 20 STATES**

STATE	Transport, Storage and Communication	Trade, Hotels and Restaurants	Banking and Insurance	Real Estate, Ownership of Dwellings and Business Services	Public Administration	Other Services
<b>% share of subsectors in Services Sector</b>						
ANDHRA PRADESH	18	23	9	14	4	13
ASSAM	14	22	9	3	10	28
BIHAR	12	37	9	5	7	18
CHHATTISGARH	15	20	14	10	7	20
GUJARAT	16	36	13	7	4	7
HARYANA	13	34	10	16	3	11
HIMACHAL PRADESH	12	21	13	5	10	26
JAMMU & KASHMIR	8	15	12	7	30	21
JHARKHAND	16	22	9	9	13	14
KARNATAKA	12	19	16	23	4	13
KERALA	20	20	10	12	6	11
MADHYA PRADESH	14	23	14	10	8	17
MAHARASHTRA	14	20	24	17	4	8
ODISHA	17	23	13	10	5	16
PUNJAB	11	22	22	6	9	19
RAJASTHAN	12	28	13	12	5	18
TAMIL NADU	14	23	14	20	4	12
UTTAR PRADESH	15	19	11	17	8	14
UTTARAKHAND	12	47	9	4	5	11
WEST BENGAL	13	23	16	10	5	20
MEAN	13.9	24.9	13	10.9	7.6	15.9
RANGE	12	32	15	20	27	21
C.V. (%)	18.7	31	31.8	50.96	77.3	34.8

\*Source: Rbi/CSO

## Structure of Services Sector across the states

Table 2.2 shows the percent share the six subsectors of Services in the Net State Domestic Product in the 20 major states of India. The interstate variations are analysed by using Co-efficient of Variation (C.V.) of each subsector and the mean shares of each subsector etc. These are useful tools which help in analysing the extent of variations in a given scenario.

On observing the pattern of Sectoral variation in the Services Sector in the six subsectors, it is seen that Trade, Hotels and Restaurants has the highest mean share among the 6 subsectors of Service Sector, Other Services holds the second highest share in Services, followed by Transport, Storage and Communication, Banking and Insurance, Real Estate, Ownership of Dwellings and Business Services, Public Administration has the least share in the Services Sector. After a preliminary analysis results were verified from Econometric testing. Dummy Variable Regression analysis was used to test for Interstate variations in the structure of Services Sector. For each subsector it was examined whether its share is significantly different from the other states. Dummies were introduced for the 20 states of India, where the value 1 was given for the presence of that state and 0 was given for the rest all other states for each subsector of Services. State dummies ( $D_1, D_2, \dots, D_{20}$ ) were introduced in a particular subsector. The regression equation run for testing the results was:  $Y = \alpha + \beta_i D_i + \mu$

Where, Y= Percent share of a subsector in the Services Sector,  $\alpha$  = Intercept,  $\beta_i$ = differential intercept coefficient for the states(  $i = 1, 2, 3, \dots, 20$  for 20 states )  $D_i$  = State Dummy

A two-tailed  $t$  test approach was used for analysis. In table 2.3, the dependant variable is the Percent share of a subsector in the Total Services Sector. The dummies for the states are defined as follows and the regression results are depicted in table 2.3.

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A.p =1Andhra Pradesh 0 for other states	Ker=1Kerala and 0 for other states
As=1Assam and 0 for other states	M.p.=1Madhya Pradesh and 0 for other states
Bih=1Bihar and 0 for other states	Mha=1Maharashtra and 0 for other states
Cht=1Chhattisgarh and 0 for other states	Odi= 1Odisha and 0 for other states
Guj=1 Gujrat and 0 for other states	Punj=1Punjab and 0 for other states
Har=1Haryana and 0 for other states	Raj=1Rajasthan and 0 for other states
H.p.=1Himachal Pradesh and 0 for other states	T.n=1Tamil Nadu and 0 for other states
J&K=1Jammu&Kashmir and 0 for other states	U.p.=1Uttar Pradesh and 0 for other states
Jhd=1Jharkhand and 0 for other states	Utk=1UttaraKhand and 0 for other states
Knt=1Karnataka and 0 for other states	W.B =1 West Bengal and 0 for other states

### **Transport, Storage and Communication**

The third highest contributor to the Net State Domestic Product is the subsector Transport, Storage and Communication. Kerala (20%) ranks 1<sup>st</sup> among the major 20 states of India. When the regression results were compared (Table 2.3.) it was noted that, here the differential Intercept coefficient of Andhra Pradesh and Kerala were statistically significant, with a mean share higher than all other states. The differential Intercept coefficient of Jammu and Kashmir was also statistically significant, with mean share lower than other states. This shows that out of the 20 states, Andhra Pradesh, Jammu and Kashmir and Kerala have mean percent share significantly different from rest all other states. There was no significant difference in the mean percent share of Transport, Storage and Communication in all states except for Kerala, Jammu and Kashmir and Andhra Pradesh. The mean percent share in Transport, Storage and Communication of all other states was almost the same and there was not much difference in structure in Services.

### **Trade, Hotels and Restaurants**

The highest contributor to the Net state domestic Product was the subsector Trade hotels and restaurants. Uttarakhand ranks 1<sup>st</sup> among the major 20 states in India, with a share of 47 %.. The coefficient of variation was calculated out to be 31%. When the regression results were compared (Table 2.3.) it was noted that the differential Intercept coefficient of Uttarakhand and Bihar were statistically significant, with a mean share higher than all other states. This points out that out of the 20 states Uttarakhand and Bihar have mean percent share significantly different from rest all other states. Thus, there was no significant difference in the mean percent share of rest of the states except for Bihar and Uttarakhand in Trade, Hotels and Restaurants.

### **Banking and Insurance**

This subsector was the fourth highest contributor to the Net state domestic Product. Maharashtra (24%), ranked 1<sup>st</sup> among the major 20 states of India. It was noted that the differential Intercept coefficient of Maharashtra and Punjab were statistically significant (table 2.3), with a mean share higher than all other states. This points out that out of the 20 states Maharashtra and Punjab have mean percent share significantly higher than rest all other states. There was no significant difference in the mean percent share of all states

except for Maharashtra and Punjab and the structure of services in Banking and Insurance of all other states almost the same.

### **Real Estate, Ownership of Dwellings and Business Services**

This subsector was observed to be the fifth highest contributor to the Net State Domestic Product. Karnataka (23%), ranked 1st among the major 20 states of India. It was noted that, the differential Intercept coefficient of Karnataka and Tamil Nadu were statistically significant, with a mean share higher than all other states. This points out that out of the 20 states Karnataka and Tamil Nadu have mean percent share significantly different from rest all other states. Thus it can be said there is no significant difference in the mean percent share of Real Estate in all states except for Karnataka and Tamil Nadu. The mean percent share in Real Estate of all other states almost the same.

### **Public Administration**

The subsector **Public Administration** was the lowest contributor to the Net state domestic Product. It was seen that Jammu and Kashmir (30%) ranked 1<sup>st</sup> among the major 20 states in India. The differential Intercept coefficient of Jammu and Kashmir was statistically significant, with a mean share higher than all other states. This points out that out of the 20 states Jammu and Kashmir had a mean percent share significantly higher than rest all other states in Public Administration. Thus, the overall conclusion can be that there is no significant difference in the mean percent share of Public Administration in all states. The mean percent share in Public Administration for all other states is almost the same.

### **Other Services**

**Other Services** was the second highest contributor to the Net state domestic Product. Assam (28 %) ranked 1<sup>st</sup> among the major 20 states of India. The differential Intercept coefficient of Assam, Himachal Pradesh and Gujrat were statistically significant. Assam and Himachal Pradesh had mean share higher than all other states. Maharashtra has mean shares which lower in comparison to other states. This points out that out of the 20 states Assam, Himachal Pradesh and Gujrat have mean percent share significantly different from rest all other states in Other Services. Thus, the overall conclusion can be that there is no significant difference in the mean percent share of Other Services in all states except for Assam, Himachal Pradesh and Gujrat. The mean percent share in Other Services for all other states is almost the same.



## TESTING FOR SIMILARITY IN THE STRUCTURE OF SERVICES SECTORS OF 8 STATES WITH INSIGNIFICANT RESULTS

It is evident from the above discussion that for 8 states namely Chhattisgarh, Madhya Pradesh, Rajasthan, Haryana, Jharkhand, Uttar Pradesh, West Bengal, and Odisha none of the subsectors has emerged as significant. But it cannot be directly deduced from this that the structure of Services Sector is similar in all these states. Therefore, on further analysis it was tried to ascertain whether the various subsectors were significantly different across these 8 states or not. For this purpose the regression equations were tested for all the 6 subsectors for each of the 8 states by using t-test and F-test. For testing the Interstate variations in the structure of services no significant values of differential intercept for any subsectors is evident. The regression analysis or ANOVA for 8 states was conducted to verify the results. The significance of differential coefficient would be established by using the  $t$  test and overall significance was established through  $F$  test. The  $F$  test here was calculated through  $t^2$ .

The preliminary results indicated that the structure of these states is likely to be identical or similar. But we cannot conclude this to be true econometrically true. With that, further exploring and confirming these results analysis is extended further.

From Table 2.3 it can be examined that the states which were not significant at all in any subsector. So for these states again we run the following regression model:  $Y = \alpha + \beta D + \mu$  Where,  $D = 1$  for any of the 8 states and 0 for other 7 states. In a Bivariate regression model  $R^2$  does not have much relevance, but the overall significance can be looked up by F test,  $F = t^2$  for a bivariate model. F test clearly shows that none of the subsectors is significantly different in any of these states.

These 8 states mentioned above are insignificant and they show no variations in the structure of services, which was tested econometrically using regression equations and F test, as can be seen in table 2.4. This observation is confirmed in the above econometric analysis but we cannot say that these states have identical structure, to ascertain this more rigorous analysis which is outside the preview of this analysis.



Subsector	Intercept	Differential Intercept	T <sup>2</sup> = F
Transport, Storage and Communication	14.29 (12.19)	0.714 (0.371)	0.509 (N.S.)
Trade, Hotels and Restaurants	24.571 (12.19)	-4.57 (0.869)	0.755 (N.S.)
Banking and Insurance	12.286 (12.38)	1.714 (0.660)	0.44 (N.S.)
Real Estate, Ownership of Dwellings and Business Services	12 (9.87)	-2.0 (0.582)	0.35 (N.S.)
Public Administration	6.714 (5.35)	0.286 (0.081)	0.6 (N.S.)
Other Services	15.714 (13.933)	4.286 (1.34)	1.79 (N.S.)

1. Figures in parenthesis are t values
2. 'a' indicates 1% level of significance
3. 'b' indicates 5% level of significance
4. 'c' indicates 10% level of significance
5. No. of observations is 8 for the year 2013-14

As can be seen from table 2.3, not all states were statistically different from each other in their mean percent shares. Therefore it can only be concluded that the 6 subsectors of the 8 states are not significantly different from each other. But some observations can be noted regarding these states are:

- a) On calculating the mean per capita income for the 20 states, we can observe that these states which are insignificant in their mean shares in services are the states which have their per capita income below the mean per capita income for the 20 states. Hence, these are those states which are lowly developed.
- b) Another point that can be noted regarding these states is that some states are the infamous BIMARU states of India. They have poor economic conditions and are

dragging down the GDP growth rate of India. Some of these states are also a part of Red Corridor.

- c) These states seem to be stagnant in their growth when compared to the states with significant mean percent share in different subsectors. So these states need to be developed to the level of the other states.

To conclude, we can say that the states which have given statistically significant results show variations in the structure of services. In these states, their mean percent share for different subsectors in services show statistical difference from the rest of the states. Not all states are statically different from each other in their mean percent shares. These states are insignificant and they show no variations in the structure of services, which has tested econometrically.

#### **SECTION IV: REGIONAL VARIATIONS IN THE STRUCTURE OF SERVICES SECTOR**

In the previous chapters we brought out that for administrative purposes India was divided into provinces, Union Territories and districts on the basis of their geographical position, linguistic status, historical developments and other considerations after Independence, 1947. There are 843.9 million people, belonging to 60 socio-cultural region and sub regions, having 12 major religions and 18 major languages. Due to so many features varying among states, it is unlikely that the level of development in the Services Sector would almost be the same in different states of India. So we tested Interstate variations in the structure of Services Sector.

The pattern of Interstate variations in the structure of Service Sector is expected to differ across various regions. Thus, the structure of Services and the pattern of development can also be understood more clearly if we consider various regions. For this purpose, the regions can be defined on the basis of cropping pattern, level of development etc. The following regionalisation schemes were analysed:

1. Location : on the basis of location, we have two regionalisation schemes, namely,
  - a) The Coastal and the Non-Coastal states
  - b) The northern states and the southern states
2. Cropping patterns followed by the states, which were further divided into regions, namely, rice producing and the wheat producing
3. Level of development of the state: on the basis of level of development of a state, we have created two regions- less developed and highly developed.

Table 3.1

## Regional Variation in the structure of Services Sector

Dependant variable : Percent share in given subsector

Subsectors	Estimated Regression coefficients					
	Differential intercept coefficient ( Coastal Dummy)	Differential intercept coefficient (Southern Dummy )	Differential intercept coefficient (Eastern Dummy)	Differential intercept coefficient (Western Dummy)	Differential intercept coefficient (More Developed State Dummy)	Differential intercept coefficient ( Wheat/cotton state Dummy )
Transport, Storage and Communication	3.01 (2.947) <sup>a</sup>	3.857 (2.508) <sup>b</sup>	2.357 (1.72) <sup>c</sup>	1.857 (1.09)	-0.2 (-0.162)	-1.798 (-1.53)
Trade, Hotels and Restaurants	-2.96 (-0.84)	-4.607 (-0.90)	-1.357 (-0.3)	2.143 (0.382)	3.7 (1.068)	7.404 (2.36) <sup>b</sup>
Banking and Insurance	1.414 (0.751)	-0.75 (-0.29)	-1.333 (-0.58)	3.667 (1.287)	1.8 (0.97)	2.222 (1.20)
Real Estate, Ownership of Dwellings and Business Services	4.919 (2.158) <sup>b</sup>	7.964 (2.74) <sup>a</sup>	-1.452 (-0.56)	2.714 (0.85)	2.5 (1.01)	-2.091 (-0.83)
Public Administration	-3.828 (-1.49)	-5.92 (-1.70) <sup>c</sup>	-2.595 (-0.807)	-6.095 (-1.52)	-2.1 (-1.18)	-3.04 (-1.15)
Other Services	-5.788 (-2.68) <sup>b</sup>	-4.75 (-1.563)	2.333 (0.86)	-6 (-1.80) <sup>c</sup>	-4.9 (-2.16) <sup>b</sup>	-1.081 (-0.426)

1. Figures in parenthesis are t value at s
2. 'a' indicates 1% , 'b' indicates 5% and 'c' indicates 10% level of significance
3. From the regression equation  $Y = \alpha + \beta D + \mu$
4. No. of observations is 20 for the year 2013-14

## **Impact of Location on the structure of the Services Sector:**

### **Regionalisation Scheme I: Coastal versus Non-Coastal states**

The structure of Services Sector is expected to be different across Coastal and Non-Coastal states; reason being that location near port towns enables various other activities too. Different pattern of Interstate variation in Services in the Coastal and Non-Coastal states is expected. Coastal dummy was introduced which takes the value 1 and the Non-Coastal dummy with the value 0. The dependant variable was the percent share of a subsector of Services Sector. The table 3.1 brings out the impact of location with state being a Coastal or Non-Coastal state on structure of Services across India. The following regression model was run to obtain the regional variations in the structure of Services Sector:

$$Y = \alpha + \beta_1 D_1 + \mu(1)$$

Where, Y= percent share of a given subsector in Services for the 20 major states

$D_1$  (Coastal Dummy) = 1 for Coastal states in India

= 0 for Non- Coastal states in India

The regional variations in the structure of Services sector across the 20 major states is brought out from the regression results and are discussed in the Table 3.1. It was observed that the subsectors which showed statistically significant results were Real Estate, Ownership of Dwellings and Business Services, Other Services and Transport, Storage and Communication. The subsector Other Services was less developed in the Coastal states than Non-Coastal states. So it can be concluded that, in these subsectors the structure of Services is significantly higher for the Coastal states than the Non-Coastal states. This is a plausible result because in the port towns Transport sector is likely to be more developed as they trade with the entire country. On the other hand in Non-Coastal states the transport Sector caters only to the local needs. In the subsectors Trade, Hotels and Restaurants, Banking and Insurance and Public Administration no significant difference in the percent shares of Coastal and Non-Coastal states was there hence, the structure of Services in these subsectors was almost the same for Coastal and Non-Coastal states.

### **Regionalisation Scheme II: Eastern states, Western states and Northern states, Southern states**

The impact of geographical location on the structure of Services Sector can be studied by dividing the states into 4 regions: Northern, Southern, Eastern or Western States. Dummies for three geographical regions were introduced. The following regression model was run to obtain the regional variations in the structure of Services Sector.:

$$Y = \alpha + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \mu \quad (2)$$

Where, Y= percent share of a given subsector in Services for the 20 major states

$D_1$  (Southern Dummy)=1 for Southern states  
= 0 for other states

$D_2$  (Eastern Dummy) = 1 for Eastern states  
= 0 for other states

$D_3$  (Western Dummy) = 1 for Western states  
= 0 for other state

$\beta_1 \beta_2 \beta_3$ =differential intercept coefficients

In Table 3.1 the regional variations in the structure of Services across the 20 major states is studied, with the states being either in Eastern Western or Southern region. In the subsector **Transport, Storage and Communication** the mean percent share of Southern states and the Eastern states is higher than other states. The reason could be that many Eastern and Southern states are Coastal states and hence their transport Sectors are more developed in the port areas. In the subsector **Real Estate, Ownership of Dwellings and Business Services** the mean percent share of Southern states was higher than other states. This difference could be attributed to the presence of Karnataka which was the highest contributor in terms of percent share to this Sector. In **Public Administration** the mean percent share of Southern states was significantly lower than other states, as Public Administration was more developed in some Northern and Eastern states so the mean share of services in Southern states are significantly lower than other regions. In **Other Services** the mean percent share of Western states was lower than other states. The reason could be that Other Services was found out be more pronounced and developed in the Northern and Eastern states. Hence mean percent in Other Services was lower in Western states than the other regions.

In the subsectors **Trade, Hotels and Restaurants** and **Banking and Insurance** there was no difference in the mean percent share of states of any region. Hence the structure of Services was almost the same in Southern, Eastern and Western states in comparison to Northern states. These subsectors were more developed in the Northern region. The Northern states had a higher per capita income and are more developed than other regions. Hence it can be said that there was no regional variations in the structure of Services in these subsectors.

### **Impact of Level of Development of the state and the Regional Variations**

To know how the level of development impacts the structure of Services Sector across states first the level of development of all states was calculated. For this the Per capita NSDP at factor cost (billions) or the Per capita income (billion) was taken as a proxy for level of development. The mean per capita income of the 20 states was calculated and kept as a benchmark for dividing the states into two groups. From the knowledge of the mean per

capita income, 20 major states of India were divided into two groups: a) More Developed states and b) Less developed states.

To know the regional variations in the structure of Services Sector across the less developed and more developed states dummy for the more developed states is introduced. The more developed states dummy is introduced which takes up the value 1 for more developed states and 0 for the less developed states. The following regression equation was run to obtain the regional variations in the structure of Services Sector.:

$$Y = \alpha + \beta_1 D_1 + \mu \quad (3)$$

Where, Y= percent share of a given subsector in Services for the 20 major states

$D_1$  (more developed states Dummy) = 1 for more developed states in India  
= 0 for less developed states in India

The regional variations in the structure of Services sector across the 20 major states is brought out from the regression results and are depicted in the Table 3.1. The regression results from equation (3) give the following results. In the subsector **Other Services** the mean percent share of More developed states was significantly lower than the less developed states. In the subsectors **Transport, Storage and Communication, Trade, Hotels and Restaurants, Banking and Insurance and Public Administration, Real Estate, Ownership of Dwellings and Business Services** there was no significant difference in the mean percent shares of More developed and less developed states. The structure of Services in the above mentioned subsectors was almost the same for more developed and less developed states. The only difference in mean percent share in the More developed and less developed states was noted in Other Services. This indicated that level of development does not have a significant impact on the most of the subsectors in Services. Only Other Services were more developed in less developed states.

### **Impact of Cropping pattern followed by a state and Regional Variations in the structure of Services Sector.**

Another way the differences in the structure of Services Sector across the country can be studied is by studying the cropping pattern. For this purpose, Dummy for cropping pattern was introduced. Dummy for Wheat/cotton producing states was introduced and assigned the value 1 and the rice producing states were assigned the value 0. The following regression equation was run to obtain the regional variations in the structure of Services Sector:

$$Y = \alpha + \beta_1 D_1 + \mu \quad (4)$$

Where, Y= percent share of a given subsector in Services for the 20 major states

$D_1$  (wheat/cotton state dummy) = 1 for wheat/cotton producing states in India  
= 0 for rice producing states in India

The regional variations in the structure of Services sector across the 20 major states was brought out from the regression results and depicted in the Table 3.1. The mean percent share for Wheat/cotton producing states in **Trade, Hotels and Restaurants** was higher than Rice producing states. This collaborates with the previous results because Wheat/cotton producing states are concentrated in Northern region where the states are more developed. Also, Uttarakhand which had the highest percentshare in trade and Hotels is a Wheat producing, Northern state and it might have pulled up the mean percent share for wheat producing states.

In the subsectors **Transport, Storage and Communication, Other Services, Banking and Insurance and Public Administration, Real Estate, Ownership of Dwellings and Business Services** there was no significant difference in the percent shares of wheat/cotton producing states and rice producing states...hence, it can be said that the structure of Services for the wheat/cotton producing states and Rice producing states in these subsectors was almost the same.

It is true that not all regions in India have benefitted from the different improvements in overall economic performance. Like China where geographical features like landlockedness and access to the sea explain to a large extent the pattern of regional economic performance India's federal structure and the political autonomy and independence in legislative powers enjoyed by state government along with regional variation in collective strength of economic and political elite have also allowed for regional variations and have been important in explaining them. In addition to difference in institutional quality, initial conditions like agro climatic factors have also led to divergence in growth of different states and regions in India.

## SECTION V: SUMMARY AND CONCLUSIONS

The Uniqueness and sudden growth pattern of Services Sector of India needs to be recognised understood and analysed with its long term implications for long term development strategy and policy. The mean share of Agriculture sector in the Total Net state domestic Product was lowest (16.3%) followed by Secondary Sector (22.35%). The mean share in total Net state domestic product was highest for Tertiary sector (60.5%). Hence, it shows Tertiary sector contributes the most in NSDP as compared to other two sectors. The co-efficient of variation (C.V.) was quite low in Tertiary sector (12.5%), it was lowest among the three 3 main sectors. Agriculture sector had the largest co-efficient of variation (34.9%) and the C.V. for Secondary sector was 22.25%. This shows that Tertiary sector has grown rather uniformly than the other two sectors.

On observing the pattern of sectoral variation in the Services Sector in the six sub sectors, it was seen that Trade, Hotels and Restaurants had the highest mean share among the 6 sub sectors of Service Sector, Other Services had the second highest share in Services, followed by Transport, Storage and Communication, Banking and Insurance, Real Estate, Ownership of Dwellings and Business Services, Public Administration has the least share in the Services Sector. Examining the Co-efficient of variation across all 6 subsectors the following observation were made: Public Administration had a coefficient of variations 77.3% which was the maximum among all sub sectors, hence it showed maximum variations. Real Estate, Ownership of Dwellings and Business Services had a Coefficient of variation 50.9% which was second largest in the subsectors, followed by Other Services with a coefficient of variation 34.8% , Banking and Insurance with a coefficient of variations 31.8% ,Trade, Hotels and Restaurants with a coefficient of 31% which was second lowest, Transport, Storage and Communication with a coefficient of 18.7% and this sector had the minimum variations.

On observing the Interstate variations in Transport, Storage and Communication, it was seen that out of the 20 states Andhra Pradesh, Jammu and Kashmir and Kerala had a mean percent share significantly different from rest all other states. Hence, in Transport, Storage and Communication mean percent was not significantly different in rest of the states. On observing the Interstate variations in Trade, Hotels and Restaurants, it was observed that out of the 20 states Uttarakhand and Bihar have mean percent share significantly different/higher than rest all other states. On observing the Interstate variations in Banking and Insurance, we see Maharashtra and Punjab had mean percent share significantly higher from



rest all other states. Interstate variations in the sub sector Real Estate, Ownership of Dwellings and Business Services show that Karnataka and Tamil Nadu had a mean percent share higher than rest all other states. The Interstate variations in the sub sector Public Administration show that that the mean percent share for Jammu and Kashmir was found to be higher than the mean share of other states in this subsector. The Interstate variations in Other Services were examined, and it was seen that Assam and Himachal Pradesh had a mean share higher than all other states, whereas Gujarat had a mean share which is lower in comparison to other states. Hence to summarise it can be said that in 8 states namely, Chhattisgarh, Madhya Pradesh, Rajasthan, Haryana, Jharkhand, Uttar Pradesh, West Bengal, and Odisha no subsector was found to be significant and structure of Services Sector was found to be almost the same with no significant variation.

On observing the regional variations it was noted that, Transport, Storage and Communication, Real Estate, Ownership of Dwellings and Business Services and other Services were found to be more developed in Coastal areas than in Non-coastal. Transport, Storage and Communication, Real Estate, Ownership of Dwellings is significantly more developed in South compared to North. Public Administration had a smaller mean share in South than in North. Transport and Storage in East was more developed than North. Other Services had smaller mean share in West than in North. The level of development of a state had no impact on structure of services. Other Services has smaller mean share in more developed states than in lesser developed states. Cropping pattern had no impact on structure of Services Sector. Only Trade, Hotels and Restaurants was developed in wheat producing states. This maybe because Uttarakhand is a wheat producing state and has a high share in trade and hotels. Inter sectoral variations in the structure of Services Sector was analysed and by both the techniques it was confirmed that there are significant variations and there exists a difference in the mean share of all the subsectors.

The above findings are suggestive of some important policy implications. No doubt Services Sector emerged as the engine of growth for the economy in the past decade and it is also the leading sector in most of the states but its structure varies drastically across the states. Therefore policies to increase employment in Services Sector (which is lagging much behind its share in NSDP) should be designed keeping in mind the heterogeneities in the structure of each state. One policy would not fit all the states. Also the determinants of these variations need to be further explored so that the states with lesser developed subsectors of Services Sector can work towards their development. This visual and statistical picture of the structure

of Services Sector would be a handy tool in working towards increasing employment in this sector because when the employment share of Services Sector crosses the 50 % mark only then can it be truly hailed as the engine of growth.

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INTER STATE VARIATIONS WITHIN A PARTICULAR SUBSECTOR									
STATE $D_i = 1$ , for a state $=0$ for other states	Trade, Hotels and Restaurants			Banking and insurance			Real Estate, Ownership of Dwellings and Business Services		
	DUMMY VARIABLES	$\alpha$	$\beta$ (t value at )	$\beta+\alpha$	$\alpha$	$\beta$ (t value at )	$\beta+\alpha$	$\alpha$	$\beta$ (t value at )
ANDHRA PRADESH DUMMY	24.90	-1.94 (-0.23)	22.96	12.21	-4.21 (-0.99)	9.00	10.68	2.31 (0.57)	13.99
ASSAM DUMMY	25.00	-3.00 (-0.36)	22.00	12.21	-4.21 (-0.99)	9.00	11.26	-8.26 (-1.5)	3.00
BIHAR DUMMY	24.20	12.70 (1.6)	36.90	12.21	-4.21 (-0.99)	9.00	11.15	-6.15 (-1.08)	5.00
CHHATTISGARH DUMMY	25.10	-5.10 (-0.63)	20.00	12.94	1.05 (0.24)	13.99	10.89	-0.90 (-0.15)	10.00
GUJARAT DUMMY	24.20	11.70 (1.50)	35.90	13.00	0.00	13.00	11.05	-4.05 (-0.70)	7.00
HARYANA DUMMY	24.30	9.60 (1.20)	33.90	12.16	-2.16 (-0.73)	10.00	10.57	5.42 (0.95)	15.99
HIMACHAL DUMMY	25.00	-4.05 (-0.49)	20.95	13.00	0.00	13.00	11.15	-6.15 (-1.08)	5.00
JAMMU & KASHMIR DUMMY	25.30	-10.36 (-1.30)	14.94	13.05	-1.05 (0.24)	12.00	11.05	-4.05 (-0.70)	7.00
JHARKHAND DUMMY	25.00	-3.00 (-0.36)	22.00	12.21	-4.21 (-0.99)	9.00	10.94	-1.94 (-0.33)	9.00
KARNATAKA DUMMY	25.10	-6.10 (-0.76)	19.00	12.84	2.16	15.99	10.21	<b>12.78 (2.55)<sup>b</sup></b>	22.99
KERALA DUMMY	25.10	-5.10 (-0.63)	20.00	12.16	-2.16 (-0.73)	10.00	10.78	1.21 (0.208)	11.99
MADHYA_PRADESH	24.90	-1.90 (-0.23)	23.00	12.94	1.05 (0.24)	13.99	10.89	-0.90 (-0.15)	10.00
MAHARASHTRA DUMMY	25.10	-5.10 (-0.63)	20.00	12.42	<b>11.58 (2.4)<sup>a</sup></b>	23.99	10.52	6.47 (1.14)	16.99
ODISHA DUMMY	24.90	-1.90 (-0.23)	23.00	13.00	0.00	13.00	10.89	-0.90 (-0.15)	10.00
PUNJAB DUMMY	25.00	-3.00 (-0.36)	22.00	12.52	<b>9.47 (2.52)<sup>b</sup></b>	21.99	11.10	-5.10 (-0.89)	6.00
RAJASTHAN DUMMY	24.60	2.30 (0.40)	27.90	13.00	0.00	13.00	10.78	1.21 (0.20)	11.99
TAMIL NADU DUMMY	24.90	-1.90 (-0.23)	23.00	12.94	1.05 (0.24)	13.99	10.36	<b>9.63 (1.8)<sup>c</sup></b>	19.99
UTTAR PRADESH DUMMY	25.10	-5.10 (-0.76)	20.00	12.11	-2.11 (-0.48)	11.00	10.52	6.47 (1.14)	16.99
UTTARAKHAND DUMMY	23.60	<b>22.30 (3.8)<sup>a</sup></b>	46.90	12.21	-4.21 (-0.99)	9.00	11.21	-7.21 (-1.29)	4.00
WEST BENGAL DUMMY	24.90	-1.90 (-0.23)	23.00	12.84	2.16 (0.73)	15.99	10.89	-0.90 ( -0.15)	10.00

INTER STATE VARIATIONS IN A SUBSECTOR OF SERVICES SECTOR									
STATE $D_i = 1$ ,for a state $=0$ for other states	Transport, Storage and Communication			Public Administration			Other Services		
DUMMY VARIABLES	$\alpha$	$\beta$ (t value at )	$\beta+\alpha$	$\alpha$	$\beta$ (t value at )	$\beta+\alpha$	$\alpha$	$\beta$ (t value at )	$\beta+\alpha$
ANDHRA PRADESH DUMMY	13.68	<b>4.31</b> (1.70) <sup>c</sup>	17.99	7.73	-3.73 (- 0.607)	4.00	16.00	-3.00 (- 0.51)	13.00
ASSAM DUMMY	13.95	0.11 (- 0.03)	14.05	7.42	-2.57 (0.417)	4.85	15.21	<b>12.78</b> (2.56) <sup>b</sup>	27.99
BIHAR DUMMY	14.00	-2.00 (- 0.71)	12.00	7.57	-0.57 (-0.93)	7.00	15.73	2.26 (0.39)	17.99
CHHATTISGARH DUMMY	13.84	1.15 (- 0.41)	14.99	7.57	-0.57 (-0.93)	7.00	15.63	4.36 (0.76)	19.99
GUJRAT DUMMY	13.78	2.21 (- 0.77)	15.99	7.73	-3.73 (- 0.607)	4.00	16.31	<b>-9.31</b> (- <b>1.7</b> ) <sup>c</sup>	7.00
HARYANA DUMMY	13.90	-0.95 (- 0.33)	12.95	7.78	-0.48 (-0.78)	7.30	16.11	-5.11 (- 0.89)	11.00
HIMACHAL DUMMY	14.00	-2.00 (- 0.71)	12.00	7.42	2.57 ( 0.417)	9.99	15.32	<b>10.68</b> (2.03) <sup>b</sup>	26.00
JAMMU & KASHMIR DUMMY	14.21	<b>-6.21</b> (-2.5) <sup>b</sup>	8.00	6.36	23.63 (8.55) <sup>a</sup>	29.99	15.57	5.42 (0.95)	20.99
JHARKHAND DUMMY	13.78	2.21 (- 0.79)	15.99	7.26	5.73 (0.94)	12.99	15.94	-1.94 (- 0.33)	14.00
KARNATAKA DUMMY	14.00	-2.00 (- 0.71)	12.00	7.73	-3.73 (- 0.607)	4.00	16.00	-3.00 (- 0.51)	13.00
KERALA DUMMY	13.57	<b>6.42</b> (2.6) <sup>b</sup>	19.99	7.63	-1.63 (- 0.262)	6.00	16.10	-5.11 (- 0.89)	11.00
MADHYA_PRADESH	13.89	0.11 (- 0.03)	13.99	7.52	0.47 (0.76)	7.99	15.78	1.21 (0.20)	16.99
MAHARASHTRA DUMMY	13.89	0.11 (- 0.03)	13.99	7.73	-3.73 (- 0.607)	4.00	16.26	-8.26 (- 1.50)	8.00
ODISHA DUMMY	13.73	2.26 (1.19)	16.99	7.68	-2.68 (-0.43)	5.00	15.84	0.16 (0.02)	16.00
PUNJAB DUMMY	14.05	-3.05 (-1.1)	11.00	7.47	1.52 (0.24)	8.99	15.68	2.31 (0.57)	18.99
RAJASTHAN DUMMY	14.00	-2.00 (- 0.71)	12.00	7.68	-2.68 (-0.43)	5.00	15.73	2.26 (0.39)	17.99
TAMIL NADU DUMMY	13.89	0.11 (0.37)	13.99	7.73	-3.73 (- 0.607)	4.00	16.05	-4.05 (- 0.70)	20.10
UTTAR PRADESH DUMMY	13.84	1.15 (0.41)	14.99	7.52	0.47 (0.76)	7.99	15.94	-1.94 (- 0.33)	14.00

UTTARAKHAND DUMMY	14.00	-2.00 (- 0.71)	12.00	7.68	-2.68 (-0.43)	5.00	16.10	-5.10 (- 0.89)	11.00
WEST BENGAL DUMMY	13.94	-0.94 (- 0.33)	13.00	7.68	-2.68 (-0.43)	5.00	15.60	4.36 (0.76)	19.96