

Emerging Structure of Rajasthan Economy in India

Singh, Inderjeet and Lila, Anshu

Economics Department, Punjabi University, Patiala (Pb), India, Commerce Department, Jain Vishwa Institute (Deemed University), Ladnun (Rajasthan), India

25 November 2012

Online at https://mpra.ub.uni-muenchen.de/43522/MPRA Paper No. 43522, posted 02 Jan 2013 12:03 UTC

Emerging Structure of Rajasthan Economy in India

Inderjeet Singh

Professor, Economics Department, Punjabi University, Patiala (Pb) INDIA inderjeetsidhu@rediffmail.com

Anshu Lila

Assistant Professor, Commerce Department Jain Vishwa Institute (Deemed University), Ladnun (Rajasthan) Email: lila_anshu@rediffmail.com

Abstract

The excess growth of tertiary sector coupled with state-of-the-art technology has got its own implication for the future development patterns of the system. In India, the share of tertiary sector in the gross domestic product has crossed the fifty-five percent mark. Rajasthan, a state of India characterized by easy access to largest consumer markets, touches six major states of the Northern, Western and Central India. It is a natural corridor between the wealthy Northern and the prosperous Western states of the country, which make it an important trade and commerce centre. The tertiary sector is emerging as the dominant sector of the economy. The nature and role of this tertiary sector growth is a matter of concern. This work is an attempt to analyze the emerging structure of Rajasthan economy and its implications for the future.

Keywords: Structure, Structural Change, Tertiary Sector, Rajasthan

Introduction

As the economy moves from lower to higher stages of development, there occurs a shift from simpler to more modern and complicated techniques of production on the one hand and from primary to secondary and/or to tertiary sectors on the other. The excess growth of tertiary sector coupled with state-of-the-art technology has got its own implication for the future development patterns of the system. In India, the share of tertiary sector in the gross domestic product has almost touched the fifty percent mark. Rajasthan, a state of India characterized by easy access to largest consumer markets, touches six major states of the Northern, Western and Central India. It is a natural corridor between the wealthy Northern and the prosperous Western states of the country, which makes it an important trade and commerce centre. The tertiary sector is emerging as the dominant sector of the economy. The nature and role of this tertiary sector growth is a matter of concern. This work is an attempt to analyze the emerging structure of Rajasthan economy and its implications for the future.

In this work, it is broadly hypothesized that the excessive and skewed tertiarization of the Rajasthan economy, has its own consequences in terms of structure, employment and growth of the system. In this context, the main objective of the study is: (a) to analyze the nature, structure and growth of tertiary sector in Rajasthan; (b) to explore the relation of tertiary sector growth and employment in Rajasthan; and (c) to arrive at a policy prescription targeted at higher economic growth and employment.

Data and Methodology

Keeping in view the broad objectives of the study, the secondary data on the Rajasthan economy has been used. For analysis of structure sector-wise shares in Net State Domestic Product (NSDP) and employment have been analyzed. The data have been obtained from 'Statistical Abstracts', 'National Accounts Statistics', 'NSSO Rounds of Survey' and other publications. In addition, some individual service sector specific sub-sector departmental data sources also form the database of the study. Using appropriate statistical techniques, the temporal and spatial dimension of the tertiary sector has been

explored. Wherever needed, appropriate price adjustments and data refinements have been done.

Review of Theory and Empirics

The distinction between goods and services has become erroneously and unnecessarily confused with the distinction between tangible and intangible product. The paper by Hill (1999) gives an alternative taxonomy for classification of output as tangible goods, intangible goods and services. Hill notes that an important and fast growing class of intangible products that have all the salient economic characteristics of goods and none in common with the services. Hill recommends that the traditional dichotomy between goods and services should be replaced by three-way breakdown: tangible goods, intangible goods and services. Usually, the tertiary sector covers all activities of the economy except agriculture (including forestry, fishing, livestock and hunting) and industry (including manufacturing, mining, construction and electricity).

The economic literature on tertiary sector may be classified into four broad categories. First, the nature, structure and the growth of tertiary sector have been studied by most of the studies. Second category of studies relates to the analysis of relation of tertiary sector and economic growth. Third set of studies deals with analysis of employment and labour productivity in the tertiary sector. Another set of studies relates to the Baumol's productivity paradox, wherein the relation of technology input and productivity in the service sector has been explored.

One of the core issues for economists in the past decade has been the *productivity slowdown* that began in the early 1970s. The sharp drop in productivity roughly coincided with the rapid increase in the use of Information Technology. The relationship between information technology and productivity has been widely discussed, but the little understood. In this regard Grilliches (1992) argues that there is an urgent need to improve the measurement, both in terms of availability of basic statistics and improvement in the conceptual framework for their interpretation. Several studies have analyzed the productivity paradox in manufacturing (Loveman, 1988; Barua

Kriebel and Mukhopadhyay, 1995) and in services (Baily, 1986; Franke, 1987; Strassman, 1990; Roach, 1991; Harris and Katz, 1991; Alpar and Kim, 1991; Parsons and Denny, 1993).

The *relation of tertiary sector and economic growth* has been explored by many of the studies. There are two ways of making a quantitative study of the relationship between economic growth and the tertiary sector's contribution to Gross Domestic Product (GDP). The approach of Kuznets (1979) is to use the values of per capita GDP as a basis of subdividing the sample into groups of countries that are expected to have a more homogeneous sectoral pattern. The alternative approach used by United Nations is to use explanatory variables in a single equation. The former approach is preferable in certain cases of complex inter-connection among explanatory variables that may require different functional forms for each group, but it has advantages of reducing the size of the sample. In this regards several studies are worth mentioning (Rita Bhowmik, 2000; Thakur, 1992; Datta, 2001; Arunachalam and Nandha Kumar, 2002; and Gandhi and Ganesan, 2002).

The relation of employment and output in tertiary sector has been explored by many studies in India. Suryanarayanan (2000) examines the capacity of generating direct and indirect employment and quality of employment in service sector. Rajendra Kumar (1995) using a disaggregated concludes that tertiary sector has a more potential for growth and the shift of workforce from primary sector to tertiary sector is more than that in the secondary sector. There is also enough scope for labour absorption in this sector. In this regard Amalesh Banerjee (1995) argues that along with trade liberalization, financial liberalization will usher in an era of galloping economic growth and abundance of employment, but the globalization of these services will reduce the service opportunities. Singh (2000) has analyzed the employment generation capacity of the India's service sector. The study by Joshi (2004), deals with analysis of implications of tertiary sector driven growth in India and its implications for employment. The study concludes that in medium-term it is a generator of employment, but in the long run the sustainability of such a trend is doubtful.

The excessive growth of service sector and its implications for employment and economic growth have been analyzed by many studies (Ashok Mitra, 1988; Bhattacharya and Mitra, 1990; Nagraj, 1991; Krishna Majumdar, 1995; Madheswaran and Dharmadhikary, 2000). The studies have examined the increasing share of service sector in GDP coupled with lagging employment growth in this sector over decades. In addition, a numerous studies have come up in the recent past on sector-wise analysis of service sector in India.

The review of studies is indicative of the fact that most of the studies done so far are too aggregative and mostly deal with country or cross-country analysis. Very few studies have been done at disaggregate or state level. A study fortified with disaggregated data going rigorously into structural change and tertiary sector of Rajasthan economy is need of the time.

Analysis

Indian economy has undergone a significant structural change since Independence. This is highlighted by the change in the sector-wise composition of income and workforce over the years. The decade of 1990s witnessed major policy changes in the Indian economy and its State/Union territory economies. Each state of the Indian union is different in terms of its natural, social, political and economic features. Therefore, the pattern of growth of each sub-national unit is unique. Historically, Rajasthan has predominantly been an agricultural economy; the percentage share of primary sector in gross domestic product as well as labour force has been the highest. But over the years, there has been a change in the sector-wise distribution of state domestic product. The tertiary sector has become an important sector in terms of its contribution to the state domestic product. However the primary sector still occupies a dominant position in terms of its share in the distribution of sectoral workforce.

Services play a central role in the economies of both developed and developing countries. In most of the economies, the share of services has crossed the fifty percent mark. In general, the services account for more than half of the gross domestic product of all developed economies and constitute

the single largest sector in most developing economies. Major reason for this enhanced bigger share is due to rapid urbanization, the expansion of the public sector and increased demand for intermediate and final consumer services. Access to efficient services has become crucial for the productivity and competitiveness of the entire economy. The growth of the primary and secondary activities in the economy is to a large extent dependent on services offered by banking, insurance, trade, commerce, entertainment, maintenance and numerous other services categorized as tertiary activities.

The Global Experience

Kuznets (1966) has documented the global experience of economic development of developed countries. In these countries the share of primary sector has registered a steady decline in total output, whereas that of secondary sector has shown an increase for a considerable long period and after that it has declined. However, the share of tertiary sector has steadily increased throughout, but the rate of increase seems to have accelerated in the latter half of the twentieth century. This is the period during which industry has seen a decline in its share and, therefore, is often described as a period of 'deindustrialization' (Rowthorn and Wells, 1987) in developed countries. This period is characterized by the emerging dominance of tertiary sector in the economies of developed countries and is also seen as signaling the dawn of a 'post-industrial society' (Clark, 1984). The tertiary sector has experienced a secular rise in its share right through the period of modern economic growth in all of these countries except for an initial decline in few countries like United Kingdom, France and Germany which were the early industrial countries. In United Kingdom the share crossed fifty percent mark by 1901 to saw a decline till about mid-1950's and then again crossed fifty percent by 1960 when most other countries like France, Germany, Italy and Japan has crossed this mark for the first time. The United States of America had hit a 50 percent mark for tertiary sector in its GDP even earlier then 1960. Thus, it is quite obvious from these historical patterns as documented in economic literature that the most common global pattern of structural change that have been observed in developed countries of today has followed a sequence of shift from primary to secondary and then to tertiary sector.

Table 1 shows the percentage sectoral shares of some selected developed countries in the year 2009. What is interesting to observe is that by the end of the twentieth century most of the developed countries showed a remarkably similar production structure of their economies. Thus, primary sector contributed less than 5 percent in GDP, secondary sector 20 percent to 30 percent and services around 68 percent to 78 percent, in all of them.

Table 1: Sector-wise contribution as a percentage of GDP in selected developed countries in the year 2009

| Country | Sector | | | | | | |
|----------------|---------|-----------|----------|--|--|--|--|
| Country | Primary | Secondary | Tertiary | | | | |
| United Kingdom | 1 | 24 | 76 | | | | |
| United States | 1 | 21 | 77 | | | | |
| France | 2 | 20 | 78 | | | | |
| Japan | 1 | 29 | 69 | | | | |
| Germany | 1 | 30 | 69 | | | | |
| Italy | 2 | 27 | 71 | | | | |
| Australia | 3 | 29 | 68 | | | | |

Source: World Development Report, 2011.

Table 2 shows the percentage sectoral shares in employment of these selected developed countries in the year 2009. Table underscores the fact that most of the developed countries showed a similar employment structure of their economies, wherein primary sector contributed less than 5 percent, secondary sector 20 percent to 30 percent and services around 67 percent to 79 percent in all of them. Thus, the share of each sector in employment is moving, in line with the GDP share of that sector. That is to say the employment structure of most developed countries is exactly similar to their production structure, thus, reflecting a high degree of inter-sectoral equality in their productivity and income levels.

Table 2: Percentage sectoral shares in employment, in selected developed countries, in the year 2009

| Country | Sector | | | | | | |
|----------------|---------|-----------|----------|--|--|--|--|
| Country | Primary | Secondary | Tertiary | | | | |
| United Kingdom | 1 | 20 | 79 | | | | |
| United States | 1 | 20 | 79 | | | | |
| France | 3 | 23 | 74 | | | | |
| Japan | 4 | 27 | 69 | | | | |
| Germany | 2 | 28 | 70 | | | | |
| Italy | 4 | 29 | 67 | | | | |
| Australia | 3 | 21 | 76 | | | | |

Source: Calculated from World Development Indicators, 2011.

In the transformation, the process of economic development in an economy results in distinct structural changes. As a country progresses and the gross domestic product (GDP) basket enlarges, a shift in economic activity occurs away from agriculture towards tertiary and manufacturing sectors, owing to higher income elasticity of the latter two sectors than that of former sector (Fisher, 1939 and Clark, 1940). The process, in turn, leads to structural shifts, and consequent diminishing significance of primary activities and growing dominance of secondary and tertiary activities. This process brings significant changes in the production process, consumption pattern and various other social indicators. As per the standard economic literature on the subject, service sector experiences an accelerated growth only after a certain level of development has taken place in agriculture and industry. Experience of the economies over-time, in this regard, has been varied. For instance, in most of the developed economies, economic development followed a sequence wherein sectors viz., agriculture, industry and tertiary sector developed in that order. On the contrary, the experience of some of countries such as India bears out that subsequent to the development of the primary sector, tertiary sector developed without a successful transition to an industrialized economy.

The Indian Experience

The Indian economy has observed a growth pattern in which the share of tertiary sector in GDP has moved far ahead of its share in primary as well as secondary sectors without proportionate change in labour force which is at variance with the historical pattern of development as observed in developed countries. The emergence of India as one of the fastest growing economies in the world during the 1990s is attributable, to a significant extent, to the rapid growth of its services sector. In the recent past, the Indian service sector grew at an average annual rate of nine per cent, contributing to nearly sixty per cent of the overall growth rate of the economy. Most of the growth in services has been in information technology, business process outsourcing services and knowledge based activities; other sectors like telecommunications, financial services, community services and hotels and restaurants, have also grown considerably. Access to external markets and domestic reforms have played an important role in creating a dynamic services sector in India. The sectoral

shares in GDP are indicative of the fact that the tertiary sector has emerged as a dominant sector of the economy with more than half a share of GDP. The emerging structure of the Indian economy is characterized by tertiary sector led growth with continuously shrinking share of primary sector and nearly stagnant share of secondary sector.

Emerging Structure of Rajasthan Economy

Rajasthan is a state of Indian Union. It is vibrant, exotic state where tradition and royal glory meet in a riot of colors against the vast backdrop of sand and desert. It has an unusual diversity in its entire forms- people, customs, culture, costumes, music, manners, dialects, cuisine and physical geography. The state has not only survived in all its ethnicity but owes its charisma and color to its enduring traditional way of life. The panoramic outlook of the state is simply mesmerizing; with lofty hills of Aravali's - one of the oldest mountain ranges of the world and the golden sand dunes of the Great Indian Desert - the only desert of the sub-continent.

In contrast to overall Indian economy and other states of the Indian union relative position of Rajasthan state is shown in table 3. Table is indicative of the fact that 4.40 percent of the GDP in India is generated by the State. The growth rate of GSDP is comparable with 'all states' average growth rate; there is a marginal difference only. The per capita income is far below the national average. It is US\$ 987.60 in Rajasthan against all states' average benchmark of US\$ 1324.30 in the year 2012. As far as physical infrastructure is concerned, the state owns share in all India that is compatible with its GSDP share. National Highways length in Rajasthan is 8.88 percent of the total length of such highways in the country. Regarding social indicators, the literacy rate is 67.1 percent in the State as against the all states' markup of 74.0 percent. Birth rate per thousand of population is 26.7 percent in the state against 22.1 of national figure; which is an indicator of better health facilities as compared to national average. Investment destined to the State is much below, as compared to national average. FDI equity inflows are negligible and outstanding investments are also too meager. Quantum of Public Private Participation (PPP) projects is on the comfortable side and most of it is in the roads and infrastructure. Rajasthan has been investing in capacity building

through development of a strong institutional network at all levels. The state has renowned higher educational institutions in various disciplines, producing thousands of skilled and proficient youth every year. Hence the current structure of the Rajasthan economy is poised to take off to higher economic development level with all broad indicators moving to achieve the national mark up.

Table 3: Broad economic indicators of Rajasthan State as compared to All States in 2012

| Parameter | Rajasthan | All States | Rajasthan as against All States mark up of 100 (percent) | |
|--|-----------|---------------|---|--|
| Economy | | | | |
| GSDP as a percentage of all States' GSDP | 4.40 | 100.00 | 4.40 | |
| Average GSDP growth rate (%) | 15.50 | 15.90 | 97.48 | |
| Per capita GSDP (US\$) | 987.60 | 1324.30 | 74.58 | |
| Physical Infrastructure | | | | |
| Installed power capacity (MW) | 10161 | 199627 | 5.09 | |
| Wireless subscribers ('000) | 48009 | 903727 | 5.31 | |
| Broadband subscribers ('000) | 418 | 13351 | 3.13 | |
| National Highways length (km) | 6373 | 71772 | 8.88 | |
| Airports (No.) | 6 | 133 | 4.51 | |
| Social Indicators | | | | |
| Literacy rate | 67.1 | 74.0 | 90.68 | |
| Birth rate (per ,000 population) | 26.7 | 22.1 | 120.81 | |
| Investment | | | | |
| FDI equity inflows (US\$ billions) | 0.5 | 160.0 | 0.31 | |
| Outstanding investments (US\$ billions) | 236.9 | 11318.3 | 2.09 | |
| Industrial Infrastructure | | | | |
| PPP projects (No.) | 67 | 881 | 7.60 | |
| SEZ (No.) | 10 | 386 | 2.59 | |

Source: India Brand Equity Foundation (www.ibef.org), 2012

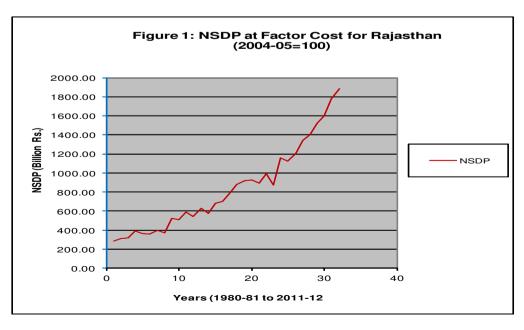
The growth pattern of Net State Domestic Product (NSDP) of Rajasthan for the period 1980-81 to 2011-12 is given in table 4. Year-wise growth rate is indicative of the fact that economy has registered many ups and downs in the growth trajectory but the current decade is a period of fair stability and positive growth (Figure 1). During the last three decades on an average, the Rajasthan economy has grown at the rate of 6.05 percent per annum. Long term growth of Rajasthan economy is satisfactory as compared to the national economy. Decadal breakup of the NSDP series shows that, in

the decade of 1980s, the state grew at the rate 5.94 percent per annum and then in 1990s at the rate of 6.53 percent per annum and touched the mark of 7.17 percent per annum in the last decade. The growth pattern suggests that economy is consistently on higher growth path trajectory during the last decade.

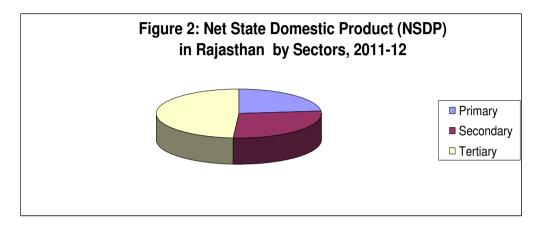
Table 4: Growth pattern of Net State Domestic Product (NSDP) in Rajasthan for the period 1980-81 to 2011-12

| NSDP | | Growth | | NSDP | Growth | |
|---|-------------------------|--------------------|-----------|-------------------------|----------------|--|
| Year | Rajasthan (Rs. Billion) | Rate (percent) | Year | Rajasthan (Rs. Billion) | Rate (percent) | |
| 1980-81 | 286.97 | (percent) | 1996-97 | 787.04 | 11.68 | |
| 1981-82 | 311.48 | 8.54 | 1997-98 | 882.77 | 12.16 | |
| 1982-83 | 317.86 | 2.05 | 1998-99 | 921.42 | 4.38 | |
| 1983-84 | 390.30 | 22.79 | 1999-00 | 923.73 | 0.25 | |
| 1984-85 | 362.23 | -7.19 | 2000-01 | 893.72 | -3.25 | |
| 1985-86 | 360.81 | -0.39 | 2001-02 | 995.49 | 11.39 | |
| 1986-87 | 395.41 | 9.59 | 2002-03 | 875.89 | -12.01 | |
| 1987-88 | 367.99 | -6.93 | 2003-04 | 1154.59 | 31.82 | |
| 1988-89 | 520.08 | 41.33 | 2004-05 | 1126.36 | -2.45 | |
| 1989-90 | 509.43 | -2.05 | 2005-06 | 1202.02 | 6.72 | |
| 1990-91 | 589.33 | 15.68 | 2006-07 | 1343.50 | 11.77 | |
| 1991-92 | 544.17 | -7.66 | 2007-08 | 1404.71 | 4.56 | |
| 1992-93 | 625.77 | 15.00 | 2008-09 | 1522.84 | 8.41 | |
| 1993-94 | 574.72 | -8.16 | 2009-10 | 1602.48 | 5.23 | |
| 1994-95 | 679.68 | 18.26 | 2010-11 | 1781.84 | 11.19 | |
| 1995-96 | 704.70 | 3.68 | 2011-12 | 1877.49 | 5.37 | |
| Compound Annual Growth Rate (CAGR), percent per annum | | 1980-81 to 1989-90 | | 5.94 | | |
| | | 1990-91 t | o 1999-00 | 6.53 | | |
| | | 2000-01 t | o 2011-12 | 7.17 | | |
| | | 1980-81 t | o 2011-12 | 6.05 | | |

Source: Central Statistics Office (CSO) website as on 01.03.2012



The growth pattern of different sectors of the economy is a best indicator of structural change in an economy. Sector-wise breakup of net state domestic product at factor cost for Rajasthan for the year 2011-12 is presented in figure 2. It shows that presently, nearly one half of NSDP (48.96 percent) is coming from the tertiary sector and rest of the half is coming from primary sector (23.35 percent) and secondary sector (27.69 percent).



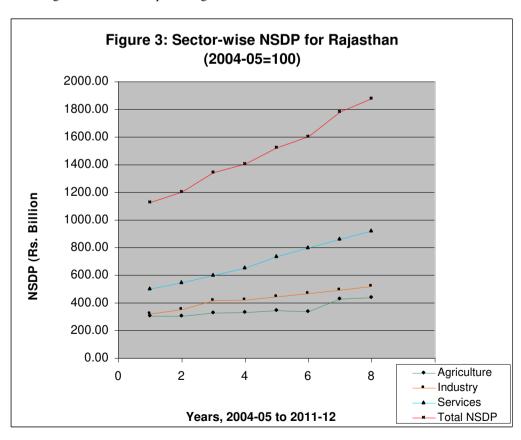
Temporal and spatial variation in the sector-wise shares is the simplest possible way to represent the structural change in an economy. Temporal and spatial dimension of this NSDP breakup is given in table 5. Relative share of primary, secondary and tertiary sector was 27.06, 28.46 and 44.48 percent respectively in year 2004-05. It has become 23.35, 27.69 and 48.96 percent respectively for primary, secondary and tertiary sector in the year 2011-12. During the new regime, the share of services in the state domestic product is on the rise and tertiary sector is appearing as a dominant sector of the economy. Table shows that the total NSDP that was Rs. 1126.36 billion in year 2004-05 has touched the level of Rs. 1877.49 billion in year 2011-12. During this period, NSDP has grown at the rate of 7.60 percent per annum. Sector-wise breakup of this growth profile shows that primary sector has grown at the rate of 5.33 percent, secondary at the rate of 6.73 percent and tertiary sector at the rate of 9.35 percent per annum. This implies that the growth dynamism of Rajasthan economy is lead by tertiary sector growth (figure 3); it is the fastest growing sector of the economy and secondary sector growth is also quite significant.

Table 5: Net State Domestic Product (NSDP) by sectors at constant prices (2004-05), Rs. Billion

| Year | NSDP from Agriculture | NSDP from Industry | NSDP from Services | Total NSDP |
|--|--------------------------|--------------------------|-----------------------|------------|
| 2004.05 | 304.80 | 320.51 | 501.04 | 1126.36 |
| 2004-05 | (27.06) | (28.46) | (44.48) | (100) |
| 2005-06 | 304.52 | 351.76 | 545.74 | 1202.02 |
| 2003-00 | (25.33) | (29.26) | (45.40) | (100) |
| 2006.07 | 327.77 | 416.76 | 598.97 | 1343.50 |
| 2006-07 | (24.40) | (31.02) | (44.58) | (100) |
| 2007.09 | 331.24 | 421.09 | 652.39 | 1404.71 |
| 2007-08 | (23.58) | (29.98) | (46.44) | (100) |
| 2008-09 | 344.75 | 443.92 | 734.17 | 1522.84 |
| | (22.64) | (29.15) | (48.21) | (100) |
| 2000 10 (D) | 336.90 | 467.12 | 798.46 | 1602.48 |
| 2009-10 (P) | (21.02) | (29.15) | (49.83) | (100) |
| 2010 11 (0) | 427.68 | 493.05 | 861.12 | 1781.84 |
| 2010-11 (Q) | (24.00) | (27.67) | (48.33) | (100) |
| 2011 12 (0) | 438.31 | 519.94 | 919.24 | 1877.49 |
| 2011-12 (Q) | (23.35) | (27.69) | (48.96) | (100) |
| Compound Annual Growth Rate (CAGR), percent per annum | 5.33 | 6.73 | 9.35 | 7.60 |

Source: Economic Review, Rajasthan, 2011-12

Note: Figures in braces are percentages.



Further finer details of the structural change can be best captured by analyzing the sector-wise shares and growth profile of sub-sectors of tertiary sector (table 6). Current sub-sector-wise shares (figure 4) show that within tertiary sector, sub-sector 'trade, hotels and restaurant' (31.72 percent), forms the largest chunk, followed by sub-sector 'other services (20.67 percent) in the year 2011-12. Hence the sector-wise share analysis shows that currently about fifty percent of the tertiary sector NSDP is coming from tourism related services and other services. Tertiary sector growth during the period, under consideration, has been 9.35 percent per annum. In this period sub-sector, 'banking and finance' has been the fastest growing sector; it grew at the rate of 16.09 percent per annum. It has been followed by 'public administration, defense and quasi-govt. bodies' (10.28 percent per annum), 'other services' (10.24 percent per annum) and 'transport, storage & communication' (10.01 percent per annum), in order. 'trade, hotels & restaurant' sub-sector has grown at the rate of 8.06 percent per annum. Structural change in the last decade is charcterised by growing service sectors share and the tourism sector and its allied sectors lead the growth process.

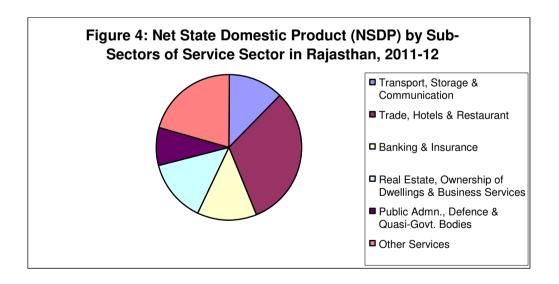
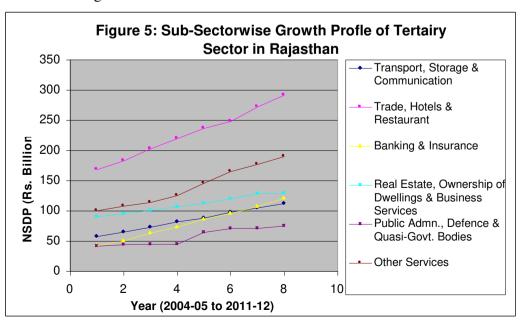


Table 6: Net State Domestic Product (NSDP) by sub-sectors of service sector at constant prices (2004-05), Rs. Billion

| | Services | | | | | | | | |
|---------|--|----------------------------------|---------------------------|---|---|-------------------|-------------------|--|--|
| Year | Transport, Storage & Communication | Trade, Hotels & Restaurant | Banking & Insurance | Real Estate, Ownership of Dwellings & Business Services | Public Admn., Defence & Quasi- Govt. Bodies | Other Services | Services Total | | |
| 2004-05 | 57.65 | 168.32 | 42.50 | 90.34 | 41.90 | 100.34 | 501.04 | | |
| | (11.51) | (33.59) | (8.48) | (18.03) | (8.36) | (20.03) | (100) | | |
| 2005-06 | 65.00 | 182.90 | 50.19 | 95.37 | 44.30 | 108.00 | 545.74 | | |
| | (11.91) | (33.51) | (9.20) | (17.47) | (8.12) | (19.79) | (100) | | |
| 2006-07 | 73.03 | 202.88 | 63.49 | 100.78 | 44.66 | 114.15 | 598.97 | | |
| | (12.19) | (33.87) | (10.60) | (16.83) | (7.46) | (19.06) | (100) | | |
| 2007-08 | 82.16 | 219.66 | 73.25 | 106.62 | 45.12 | 125.58 | 652.39 | | |
| | (12.59) | (33.67) | (11.23) | (16.34) | (6.92) | (19.25) | (100) | | |
| 2008-09 | 88.24 | 236.73 | 86.24 | 112.72 | 64.47 | 145.78 | 734.17 | | |
| | (12.02) | (32.24) | (11.75) | (15.35) | (8.78) | (19.86) | (100) | | |
| 2009-10 | 97.95 | 248.06 | 96.18 | 120.12 | 71.07 | 165.08 | 798.46 | | |
| | (12.27) | (31.07) | (12.05) | (15.04) | (8.90) | (20.67) | (100) | | |
| 2010-11 | 104.99 | 272.07 | 107.27 | 128.55 | 71.25 | 176.99 | 861.12 | | |
| | (12.19) | (31.59) | (12.46) | (14.93) | (8.27) | (20.55) | (100) | | |
| 2011-12 | 112.24 | 291.58 | 121.06 | 129.15 | 75.19 | 190.01 | 919.24 | | |
| | (12.21) | (31.72) | (13.17) | (14.05) | (8.18) | (20.67) | (100) | | |
| CAGR | 10.01 | 8.06 | 16.09 | 5.60 | 10.28 | 10.25 | 9.35 | | |

Source: rbi.org.in



In tourism, the world's largest international industry, the state has comparative advantages in this sector (Box 1). Its growth and contribution in the past do not reflect its true potential. The high multiplier effect in creating employment and demand makes tourism one of the key economic sectors.

Box 1: Overview of the Hospitality Industry in Rajasthan

- •Rajasthan is one of the most important tourist destinations in India and south-east Asia.
- •In 2008, over 26 per cent of foreign tourists visiting India, toured Rajasthan. The state received about 1.5 million foreigner and 28.4 million domestic tourists.
- •Rajasthan has a well developed tourism infrastructure, with over 6,000 hotel rooms spread over more than 150 hotels.
- •Rajasthan also runs the Palace on Wheels' luxury train, which is well known attraction for foreign tourists.

According to a report by IBEF (2012), the domestic and foreign tourism, given the unique cultural heritage of the state and growing market for tourism, the state can hope to achieve a 12 percent rate of growth per annum in domestic tourist arrivals in the state. India has been identified by World Tourism Organization and World Travel and Tourism Council as one of the countries which is likely to witness one of the highest rates of growth in international tourists over the next decade. According to this report, the State needs to target a 7 percent rate of growth per annum in international tourist arrivals in the state. Further, the current time spent by an average tourist in the state is only 2.5 days and the money spent by foreign visitors in the state in only 50 percent of average expenditure per day by foreign tourist in India. Given the vast tourism potential in the state, new product development and packaging can help Rajasthan double the time and money spent by tourists. Thus within service sector tourism and allied activities have a vast growth potential.

In addition to sector-wise shares in gross domestic product, another indicator of structural change is the sector-wise change in labour force in a system. NSSO data shows that at aggregate level (table 7), in the immediate past, there has been a significant shift of labour force from agriculture to service sector. The share of labour force in agriculture that was 57.87 percent in the year 2004-05 has come down to 41.45 percent in the year 2009-10; which is a healthy sign of development. In the manufacturing, electricity, gas and water supply related sectors; there has been a marginal decline in labour

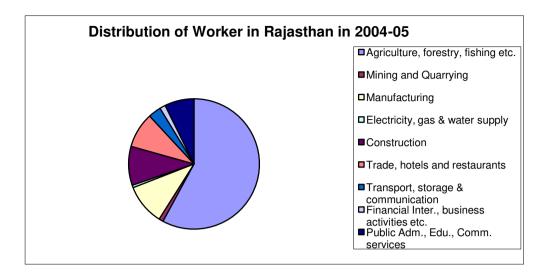
force. In the construction sector, the share of workers has doubled in 2009-10 as compared to the year 2004-05. During the same period, the share of workforce has become one and a half times in the service sector in general and in the tourism related sectors, in particular. Area-wise disaggregate data shows that share of rural workforce in agriculture have declined but this decline is much smaller than the urban counterpart. Most of the released rural workforce is heading to manufacturing or construction. Much of the urban released workforce is heading to tertiary sector.

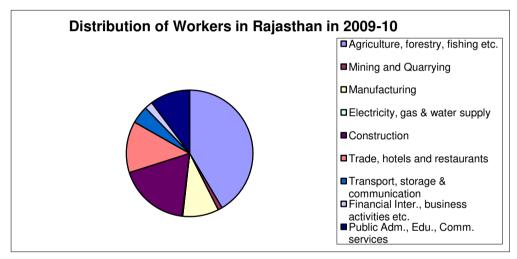
Table 7: Percentage distribution of workers according to usual status (principal

+ subsidiary) by industry in Rajasthan

| Sr. | | Year=2004-05 | | | Year=2009-10 | | |
|-----|--|--------------|-------|-------|--------------|--|-------|
| No. | Sector | Rural | Urban | Total | Rural | Urban 7.00 0.60 17.90 0.10 14.80 26.30 7.70 4.80 | Total |
| 1 | Agriculture, forestry, fishing etc. | 72.90 | 13.90 | 57.87 | 63.30 | 7.00 | 41.45 |
| 2 | Mining and Quarrying | 1.20 | 0.70 | 1.07 | 1.40 | 0.60 | 1.09 |
| 3 | Manufacturing | 5.80 | 22.80 | 10.13 | 3.70 | 17.90 | 9.21 |
| 4 | Electricity, gas & water supply | 0.20 | 1.80 | 0.61 | 0.30 | 0.10 | 0.22 |
| 5 | Construction | 9.60 | 9.90 | 9.68 | 20.20 | 14.80 | 18.10 |
| 6 | Trade, hotels and restaurants | 4.10 | 22.50 | 8.79 | 4.80 | 26.30 | 13.14 |
| 7 | Transport, storage & communication | 2.10 | 6.30 | 3.17 | 2.50 | 7.70 | 4.52 |
| 8 | Financial Inter., business activities etc. | 0.20 | 5.00 | 1.42 | 0.30 | 4.80 | 2.05 |
| 9 | Public Adm., Edu., Comm. services | 3.90 | 17.10 | 7.26 | 3.50 | 20.80 | 10.21 |
| | Total | 100 | 100 | 100 | 100 | 100 | 100 |

Source: Computed from NSSO Rounds of Survey, various years





Rajasthan economy is passing through a phase where the shift from primary and secondary sectors to tertiary sector has taken place at a fast pace. There is a differential response of rural and urban area to this structural change. Because of poor social and economic infrastructure rural areas have not been able to transform at the pace of urban areas. To maintain this pace of change, a heavy input of human capital, infrastructure and social sector is need of the time.

Conclusion

The broad conclusion that emerges is that structural change analysis of Rajasthan is indicative of the fact that the last decade has been characterized by a shift in sector-wise shares in gross state domestic product as well as in workforce from primary and secondary sectors to tertiary sector and the urban area has been the major gainer in it. It shows that that there is an ample scope

to improve the economic growth via tertiary sector growth, provided the proper human resource planning and integration of tertiary sector with commodity sector is done.

References

- Alpar, P. and Kim, M. (1991): "A Microeconomic Approach to the Measurement of Information Technology Value", *The Journal of Management Information Systems*, Volume 7 No.2.
- Arunachalam, R. and Kumar, Nandha (2002): "Dynamics of Service Sector in India-An Overview" in Jegadish Gandhi and P. Ganesan (ed.), *Service Sector in the Indian Economy*, Deep and Deep Publications Private Limited, New Delhi.
- Bhowmik , Rita (2000), "Role of Services Sector in Indian Economy: An Input-Output Approach", *Artha Vijnana*, Vol. 42, No.2, June, pp. 158-169.
- Baily, Martin (1986): "What has Happened to Productivity Growth?", Science, 234 (4775)
- Banerjee, Amalesh (1995): "The Service Sector for Growth and Employment", *The Indian Journal of Labour Economics*, Volume 38 No. 4.
- Barua, Anitesh and Kriebel, Charles and Mukhopadhyay, Tridas (1995): "Information Technologies and Business Value- An Analytic and Empirical Investigation", *Information Systems Research*, Volume 6 No. 1.
- Bhattacharya, B.B. and Mitra, Arup (1990): "Excess Growth of Tertiary Sector in Indian Economy-Issues and Implications", *Economic and Political Weekly*, November 3.
- Bhowmik, Rita (2000): "Role of Service Sector in Indian Economy- An Input-Output Approach", *Artha Vijnana*, Volume XLII No.2.
- Clark, Colin (1940), The Conditions of Economic Progress, Macmillan, London.
 - (1984), "Developing Economies: The Early Years", in G.M. Meir and D. Seers (Eds.), *Pioneers in Development*, Oxford University Press, London.
- Datta, Madhusudan (2001): The Significance and Growth of Tertiary Sector: Indian Economy 1950-97, Northern Book Centre, New Delhi.
- Fisher, A.G.B. (1939), "Production: Primary, Secondary and Tertiary", *The Economic Journal*, Vol. 15.
- Gandhi, Jegadish and Ganesan, P (2002): "The Role of Service Sector: A Comparative Analysis of India and Tamil Nadu" in Jegadish Gandhi and P. Ganesan (ed.), Service Sector in Indian Economy, Deep and Deep Publications Private Limited, New Delhi.
- Griliches,Z (1992), *Output Measurement in the Service Sector*, University of Chicago Press, Chicago.
- Harris, S.E. and Katz, J.L. (1991): "Organizational Performance and Information Technology Investment Intensity in the Insurance Industry", *Organizational Science*, Volume 2 No. 3.
- Hill, Peter (1999): "Tangibles, Intangibles and Services: A New Taxonomy for the Classification of Output", *Canadian Journal of Economics*, Volume 32 No. 2.
- Joshi, Seema (2004): "Tertiary Sector Driven Growth in India-Impact on Employment and Poverty", *Economic and Political Weekly*, September 11.

- Kuznets, Simon (1958) "Quantitative Aspects of the Economic Growth of Nations: Industrial Distribution of Income and Labour Force by States, United States 1919-21 to 1955", *Economic Development and Cultural Change*, Prentice Hall.
 - (1966), *Modern Economic Growth: Rate, Structure and Spread*, Oxford and IBH Publishing Company, New Delhi.
 - (1971), Economic Growth of Nations: Total Output and Production Structure, Harvard University Press, Cambridge.
- Loveman, G.W. (1988): "An Assessment of the Productivity Impact of Information Technologies", in *MIT Management in 1990's Working Paper*, July
- Madheswaran, S. and Dharmadhikary, Amita (2000): "Income and Employment Growth in Service Sector in India", *The Indian Journal of Labour Economics*, Volume 43 No.4
- Majumdar, Ashutosh (1984): "On the Relationship between Economic Growth and Tertiary Sector's Contribution to GDP", *Journal of Income and Wealth*, Volume 7 No.2.
- Majumdar, Krishna (1995): "Disproportional Growth of Service Sector in India: 1960-1990", *The Indian Economic Journal*, Volume 43 No.2.
- Mitra, Ashok (1988): "Dis-proportionality and the Service Sector: A Note", *Social Scientist*, Volume 16 No.4
- Nagaraj. R (1991): "Excess Growth of Tertiary Sector?", *Economic and Political Weekly*, February 2.
- Nagaraj, R. (2008) "India's Recent Economic Growth: A Closer Look", *Economic and Political Weekly*, April 12, Vol. XLIII, No.15.
- Parsons, D and Gotlieb, C and Denny, M. (1993): "Productivity and Computers in Canadian Banking" in Z. Griliches and J. Mairesse (ed.), *Productivity Issues in Services at the Micro Level*, Kluwer, Boston.
- Roach, Stephen (1991): "Services under Siege the Restructuring Imperative", *Harvard Business Review*, Volume 39 No.2.
- Rowthorn, R. and Wells, J.R. (1987), *Deindustrialization and Foreign Trade*, Cambridge University Press, Cambridge.
- Singh, Bishwa Nath (2000): "Employment Generation in India's Service Sector", *The Indian Journal of Labour Economics*, Volume 43 No. 4.
- Strassmann, Paul (1990): *The Business Value of Computers*, Information Economics Press, New Canaan, Connecticut.
- Suryanarayanan, S.S. (2000): "Service Sector and Employment", *The Indian Journal of Labour Economics*, Volume 43 No.4.
- Thakur, Devendra (1992): "Tertiary Sector in India", in Devendra Thakur (ed.), *Tertiary Sector Development*, Deep and Deep Publications, New Delhi.