EMPLOYMENT DIMENSIONS OF SERVICE SECTOR AND ITS SUSTAINABILITY IN INDIA

Shally*

ABSTRACT

Services sector is the fastest growing sector in Indian economy. Services sector is the key to economic performance of contemporary developing countries especially India. What is critical is that is it beneficial to rely on this sector growth and its contribution in employment generation is sustainable or not? The capacity of the services sector to create new jobs is critical. India unlike China has not followed traditional sequence of agriculture to manufacturing with services taking up the leading sector role in India's growth path. The results indicates that over the years while output growth in services sector has increased, employment growth rate has decelerated significantly leading to considerable fall in employment elasticity. Coupled with this there is predominance of low productivity and unskilled labor based activities in service sector. In services sector those with more skills have received higher increases in real wage . Services sector is relatively more skill demanding than manufacturing. Social security conditions are not found to be relatively much superior in services. Regression results based on time series data further reveals that investment friendly environment, better public expenditure management, effective labor policies and proper structural transformation are key to achieve employment elasticity in service sector. Besides as services sector growth is not sustainable so role of manufacturing sector should not be ignored.

Keywords: *growth; employment; structural change; service sector*

*Research Scholar, Dept. of Economics, Kurukshetra University

I. INTRODUCTION

In today's modern economies, service sector performs many important roles. First, it represents a major share of the developed economies and is increasingly integrated in the overall production system. Second, it plays an active role in market integration and globalization. Third, the creation of employment, value added and income is increasingly related to the good performance of the services.**India has the largest English speaking population in the world which acted as stimulator for development of its service sector.** In India, the service sector has evolved continually over the past thirty years, modifying the structure of employment and the composition of value added. The share of service sector in G.D.P at factor cost (at current prices) increased from 33.5% in 1950-51 to 56.3% in 2011-12 as per advance estimates of Govt. of India. Currently, service sector accounts for over 50 percent of the value added. However, despite its growing weight, the share of the working-age population employed in services remains low. This variation in the growth and employment performance of the service sector can be attributed to growing globalisation of services and rapid technological change and differences in policies and institutions in the country . There are thus serious doubts about the capacity of the Indian economy to create new jobs. In the face of the challenges of globalization , which is now affecting a large and growing part of the economy, there are new questions about the ability of India service sector to adjust to structural change and how to foster a more dynamic and competitive environment that encourages service sector to enhance productivity, offer new services and create new employment [5]. It is, in this context, imperative to understand the growth potential of the service sector in India and identify the structural factors that have become increasingly apparent in the service sector. Unleasing this potential, by a combination of structural policies, can help create more employment, enhance productivity and increase aggregate incomes. The present study thus attempts to develop a set of stylized facts characterizing the service sector in India with respect to economic growth and employment, and their interlinkages.

Accordingly, the paper is divided into six sections.

Section II presents a brief review of literature on economic development and the importance of service sector.

Section III outlines concept, database and methodology of the study.

The rates of change in services, the analytical structure, development and dynamics of major economic activities of the services through the employment intensity of this sector are presented in section IV and section V respectively. Besides comparison of manufacturing and services sector is also shown.

Section VI draws implications from the findings and concludes the study.

II. ECONOMIC DEVELOPMENT AND SERVICE SECTOR

A BRIEF REVIEW

The researchers have put in great efforts in their attempts to explain the dynamics of structural change in the process of economic growth. The process of economic development has been historically associated with structural changes in national economies. The pioneering **work of Fisher (1935), Clark (1940), Chenery (1960) and Kuznets (1971)** postulates a set of stylized facts from empirical evidence relating to the now industrialized countries. They suggest that in the early stages of economic development, the share of agriculture in both output and employment is overwhelmingly large. Subsequently, as industrialization proceeds, the share of the agricultural sector falls, with the decline being greater in output than in employment. At the same time, the share of the industrial sector rises. Once countries have industrialized and reached an advanced stage of economic development, the share of industry declines while the share of the services sector increases.

This literature attributes the above mentioned pattern of structural change to the income elasticity of demand – which for industrial goods is higher than that for agricultural goods, whereas that for services is even higher than that for industrial goods. With rising levels of income, the demand for agricultural goods will increase at a proportionally lower rate than income because the income elasticity of demand for agricultural goods is less than one. On the other hand, the demand for industrial goods will grow at a proportionately higher rate than income as the income elasticity of demand for industrial goods is greater than one. This leads to the growth of the industrial sector. However, after an economy reaches a sufficiently high level of income, the rate of increase in demand for services increases sharply as the services have an even higher income elasticity of demand than industrial goods. **Fisher (1935)** refers to this transformation in patterns of demand as a 'hierarchy of needs', where the growth of the services sector is defined by saturation of demand for manufactured goods. Of course, the increase in the rate of change of demand for services could be from both domestic and foreign consumers.

Rowthorn and Wells (1987) provide a similar description of the patterns of structural change in present-day advanced economies, focusing on employment. They argue that modern economic growth is associated with a decline in the share of agriculture in total employment, thereby resulting in an increase in both the proportion and number of people engaged in non-agricultural activity. This includes the industrial sector as well as commercial, the first stage of development, which the authors term the 'industrialization phase',[1]this refers to the rising share of industry in total employment. As the development process advances, some of the aforementioned trends continue, whereas others change. The share of agriculture in total employment continues to decline, and domestic personal services follow suit. Importantly, so long as there is plenty of labour still employed in agriculture and domestic personal services, non-domestic services can increase their share of total employment at the expense of these two sectors, leaving the share of industry unaffected. Hence, for a period of time, the share of industry may actually rise along with that of non-domestic services. Eventually, however, any significant increase in the share of non-domestic services will be at the expense of the industrial sector. This decline in the share of industry and a corresponding increase in the share of services in total employment are referred to by Rowthorn and Wells (1987) as 'de-industrialization'.[2]

Furthermore, using stylized facts for the present-day industrialized countries, Rowthorn and Wells (1987) show that real output of services did not rise significantly faster than that of manufactured goods, and that output per worker increased faster in industry than in services. This suggests that owing to its slower productivity growth, the services sector absorbs an even greater fraction of total employment to keep notional output rising parallel to that of industry. Baumol (1967) provides a theoretical framework for analysing this assertion. He argues that unlike manufacturing, the relatively labour-intensive nature of many service-sector activities implies that their productivity cannot be readily increased through capital accumulation, innovation or economies of scale. As a corollary, this suggests that owing to its slower productivity growth, the increasing share of services in total output may be attributable not to demand-side arguments, but to increasing relative prices of services. It is referred to as Baumol's 'cost disease' hypothesis.

2.1 The More Recent Literature

The importance of service-sector activity is highlighted in a more recent literature on the stylized facts of structural change. For instance, analysing a sample of 123 non-socialist countries for the period from 1970 to 1989, **Kongsamut, Rebelo and Xie (2001)** show that the decline in the share of the agricultural sector in output and employment as an economy

matures goes more to the services sector and less to industry than the **Kuznets-Chenery work** had suggested. In other words, over time, the share of services in output and employment grows along with a decline in agriculture. By contrast, the share of industry first increases modestly and then stabilizes or declines. This is reflected in the data which show that the services sector constituted 70 per cent of world GDP in 2008.[3]

Using data on a cross section of developed and developing economies over the period from 1950 to 2005, Eichengreen and Gupta (2009) identify two waves of service-sector growth: a first wave as a country moves from 'low' to 'middle' income status, and a second wave as it moves from 'middle' to 'high' income status. According to them, the first wave consists primarily of traditional services, whereas the second wave comprises modern – financial, communication and business – services. Eichengreen and Gupta (2009) also show that while countries experience the first wave of service-sector growth more or less at the same level of income as they did in earlier years, the second wave, in the post-1990 period, starts at earlier stages of economic development than before. Furthermore, they note that this greater importance of the second wave in medium- to high-income countries is most evident in economies which are relatively open to trade.

The early literature on structural change did not address this issue because unlike manufactured goods, services at the time were largely non-tradeable across borders. More recently, however, the rapid development of information and communication technologies and the formulation of the General Agreement of Trade in Services (GATS) at the World Trade Organisation (WTO) have led to a rapid increase in international trade in services. Hence, whereas exports of labour-intensive manufactured goods may result in an industrial sector whose share rises further and for longer than the average, the increasing service-sector share at higher income levels may reflect increased opportunities for producing and exporting financial, communications and business services. Naturally, in countries which are in a position to specialize and export services in which they have a comparative advantage, international trade in services may be an important explanation for the increasing importance of the services sector. In addition, Eichengreen and Gupta (2009) show that the second wave of service-sector growth is more evident in democracies and in countries close to major financial centres. They attribute this to the fact that democracies are less likely to suppress the diffusion of information and communications technologies, whereas countries in proximity to a financial hub are more likely to have a comparative advantage in the provision of financial services.

Internationalization and competitive pressures associated with market globalization, contribute to the increase in demand for services [16, 17].State, institutions and social changes also influence service sector in various ways [18, 19]. To summarize, changes in the production factors, productive systems, markets, income and institutional system have significant bearing on the changes in service sector of an economy.

III. CONCEPTS AND DATA BASE

A. ***Defining Employment***

The data used for the present study are annual and cover the period from 1960-61 to 2004-05. Employment is measured as the number of persons employed in India according to usual activity status approach (UPSS). A person is considered employed in the usual status approach if s/he had pursed gainful economic activity for a relatively longer time period immediately preceding one year prior to the date of NSS survey. This is known as 'Usual Principal Activity Status'. On the contrary, if a person had spent relatively shorter time span immediately preceding one year prior to the date of survey, s/he is accounted under 'Usual Subsidiary Activity Status'. Both the statuses together constitute UPSS

B. ***Concept of Employment Intensity of Growth and its uses .***The concept is mainly used in analyzing how economic growth and employment growth develop together, and the extent of labor market sensitivity to changes in overall economic conditions (represented by GDP growth) [21].

The relevant formula is

$$E = \frac{\Delta L/L}{\Delta Y/Y}$$

Where L stands for employment,

Y denotes gross domestic product (GDP) – aggregate or sectoral.

The numerator can be interpreted as the percentage change in employment, while the denominator refers to the percentage change in income representing the growth rate of GDP. Sectoral elasticities are used to identify whether a structural change has occurred in employment over time in the economy i.e. whether employment intensity has changed in the three major sectors (agriculture, industry and services) at different points in time. **The growth rate of G.D.P should be egalitarian and should be based on concept of Equity i.e. inclusive growth should be stressed so that benefits could reach to the poor.**

Additionally, econometric models are built to measure employment elasticities with respect to GDP, which help us understand the primary determinants that affect elasticities themselves.

C. Database

Data on economic structure and the contribution of service sector in employment and output has been taken from NSSO and CSO (Central Statistical Organization).GDP, investment and public expenditure data at factor cost and at constant prices are collected from the Central Statistical Organization(CSO) considering 1999-00 as the base year. Economic openness is measured as export plus import as a ratio to GDP and labour productivity is calculated as total employed person to GDP. Inflation, as a proxy for price uncertainty, is calculated from the GDP deflator taking the data on GDP from CSO. Labour market reform is measured by tax-GDP ratio, and the requisite data to that effect are taken from the statistical handbook of Reserve Bank of India.

IV. TRENDS IN EMPLOYMENT AND OUTPUT GROWTH OF SERVICE SECTOR IN INDIA

During the process of growth over 1960-61 to 2004-2005,unlike China and many European countries, the Indian economy has experienced a change in the production structure with a shift directly from agriculture to services sector bypassing the role of manufacturing sector. During the 1960s it was the primary sector that was the dominant sector of the economy and that accounted for the largest share in GDP. But the entire scenario changed subsequently and more particularly, in the 1980s. Service sector output increased at a rate of 7.05 per cent per annum in the period 1981 to 1990(i.e. pre-reforms period). In the post-reforms period, beginning with 1991 till 2000, the service sector output rose at 7.21 per cent per annum. Especially in the 1990s, the tertiary sector emerged as the major sector of the economy both in terms of growth rates and share in GDP. It is to be noted here that during the period 1960-61 to 2004-05, while the agriculture and manufacturing sectors have experienced phases of deceleration, stagnation and growth, the tertiary sector has shown a uniform growth trend. However, contrary to the requirements, there is almost an inverse relationship between the growth of employment and GDP growth in this sector (table 1). The growth rate of GDP in tertiary sector has increased from 7.05 percent in 1981-90 to 8.21 percent during 2001-04, while employment growth in this sector has decelerated from 4.69 percent to 1.94 percent during the same period. As a result, employment elasticity of this sector has fallen from 0.66 in 1981-90 to 0.24 in 2001-04. The decrease in employment elasticity in tertiary sector in the

wake of high growth of GDP may suggest that the growth of GDP is the resultant effects of gains in productivity rather than employment growth.

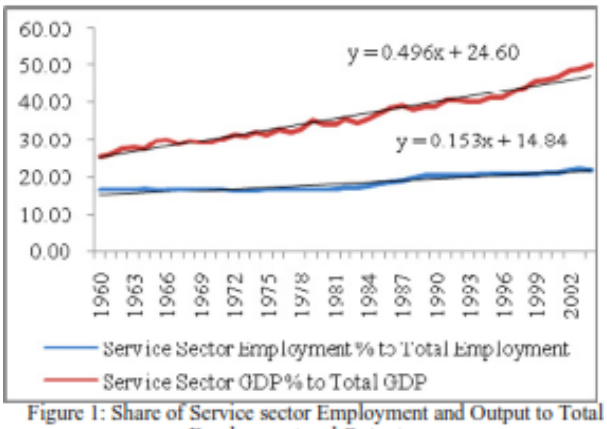

Figure 1: Share of Service sector Employment and Output to Total Employment and Output

TABLE 1: Output Growth, Employment Growth and Employment of the Service Sector

Year	Employment Growth	GDP Growth	Employment Elasticity
1961-70	0.88	5.27	0.17
1971-80	3.23	4.72	0.68
1981-1990	4.69	7.05	0.66
1991-00	2.73	7.22	**0.**38
2001-04	1.94	8.21	0.24

Source: Estimated from the data obtained from NSSO and CSO

A. Changes in the Nature and Sectoral Distribution of Employment and Output of Service Sector

Added to the above, the service sector of India is confronted with increasing casualisation throwing up questions regarding the nature, quality and heterogeneity of this sector. Some glimpses of the heterogeneity within the service sector can be traced from an investigation of the sub-64 sectoral dynamics. Keeping in view the diversified nature of the service sector, the present study proposes to analyze the service sector employment at a disaggregate level. The major industry divisions comprising of the total service sector are:

- Wholesale , retail trade, hotels and restaurants;
- transport storage and communication;
- financing, insurance, real estate and business services; and
- community, social and personal services.

Among the major four industry divisions of service sector, wholesale, retail trade, hotels and restaurants accounted for the largest proportion of service output (43.45percent) in 1961. This has, however, decreased gradually and reached 34.03 percent in 2004. However, in case of employment share, it was 29.24 percent in 1961 and has reached to 39.27 percent accounting for the largest share in 2004 (table 2). Needless to say, **increase in the share of employment in wholesale, retail trade, hotels and restaurants results in increase in the unskilled and low productive employment in India's service sector**. In case of transport, storage and communication, there is a gradual increase both in employment and output share over the periods, but the increment is very slow. The share of financing, insurance, real estate and business services to service output has increased remarkably from 6.43 percent in 1961 to 16.55 percent in 2004. It is interesting to note that this increment has shown a clear division - period from 1961-1990 witnessed an average of 7 percent share, which jumped on to an average of 16 percent in the period 1991-2004. In terms of employment, the performance of this sector is, however, disappointing. It has shown a significant increment only in the period 2001-2004, which is 8.5 percent only in 2004.Community, social and personal services which accounted for the largest proportion of employment (58.10 percent) in 1961, has shown a gradual decrease and has come down to 37.74 percent in 2004. Similar trend is followed in its share of output to total service sector output (table 3)

Table 2: Distribution of service sector employment

Year	Trade, hotels Restaurants	Transport, storage communication	Finance, insurance, Real estate	Community, social personal services
1961	29.24	11.13	1.53	58.10
1971	30.14	14.43	2.84	52.60
1981	31.83	14.66	2.25	51.26
1991	36.10	13.66	2.25	48.00
2001	37.21	15.65	7.56	39.59
2004	39.27	14.47	8.51	37.74

Source: Estimated from the data obtained from NSSO

TABLE 3:DISTRIBUTION OF SERVICES OUTPUT

Year	Trade, hotels restaurant	Transport, Storage, Communication	Finance, Insurance, real estate	Community, social Personal services
1961	43.45	16.37	6.43	33.75
1971	40.79	16.56	7.21	35.44
1981	39.90	18.93	8.71	32.47
1991	34.88	18.96	15.48	30.67
2001	33.87	19.10	16.86	30.16
2004	34.03	21.48	16.55	27.95

Source: Estimated from data obtained from NSSO and CSO

From the above findings, it is evident that India's service sector is dominated by wholesale, retail trade, hotels and restaurants and community, social and personal services both in terms of output and employment.

As more than three fourth of service sector employment in India constitutes wholesale, retail trade, hotels and restaurants and community, social and personal services, the types of labour employed are mostly unskilled and these activities tend to be low productive in nature. The high productive sectors viz. transport, storage and communication and financing, insurance, real estate and business services are unable to create employment in the service sector as they contribute only about 40 percent of the service output.

V DETERMINANTS OF EMPLOYMENT INTENSITY OF SERVICE SECTOR

Variables	Estimated coefficients
Investment	0.005**(2.039)
Public expenditures	0.053**(2.404)
Growth Rate of GDP	0.262(1.297)
Economic openness	-0.208(-0.348)
Labour productivity	-0.017(-1.347)
Workforce secondary sector	-0.001**(2.108)
Workforce service sector	-0.001**(2.378)
Inflation	-0.103(-0.594)
Tax GDP ratio	0.025***(9.009)
Constant	0.705
F.stat	67.785*** (9,34)
Dw stat	2.03(0.396)
BG stat	0.050(0.824)
Adjusted r value	0.75

[Number in parenthesis are f-stat values

*** indicates parameters are significant at 1% probability level .** indicates parameters are significant at 1% level]

The employment intensity of service sector is considered to depend upon the structural characteristics of the economy, including the potential for technological change and productivity growth, the current degree of regulation and inherent scope for domestic and international competition. Among the fundamental macroeconomic factors, service sector employment intensity is found to have been affected by investment, public expenditure and international competition. Among the fundamental macroeconomic factors public expenditure ,economic structure (share of employment of the secondary and service sector) and labour market reforms (tax-GDP ratio). The above findings corroborate with the existing literature on the determinants of employment intensity of the service sector.

There are evidences that there are elements that act as driving forces on services by bringing changes in the production factors, system and markets. These changes are related to factors such as investment, public expenditure and economic structure and finally through labour market regulations. Investment in services is significant in raising employment intensity of the service sector in India. It may thus suffice that markets should remain open to international competitions, e.g. by reducing barriers to foreign direct investment. It is perhaps important to consider how existing public expenditure can better address the needs of the service sector and improve the links between service sector firms and public expenditure.

Manufacturing versus Services

In Table 5, the age specific distribution of workers by work-status for the two survey years separated by gap of 10 years is presented. The data covers all workers (ps+ss: principal and subsidiary status).

11 The following results emerge:

1. In manufacturing young male workers (15-30) increased their share of regular jobs. Both middle age workers (31-50) and older workers (51 and above) have lost some share of their regular jobs but their share of casual jobs went up substantially that suggest they are vulnerable to lose their regular jobs perhaps due to enterprise restructuring and technological change. Female worker distribution was stable.

2. Younger male workers in services have increased their share substantially. Middle age workers lost regular jobs and increased their share of SE. Service sector has turned out to be a boon for female work. Service sector has created greater amount of regular jobs for female workers. This is a welcome development in the sense the demographic dividend is expected to result in greater female labor supply.

3. In manufacturing workforce the share of SE has decreased for males and for females in services. It increased for females in manufacturing and for males in services. This suggests an

increasing number of female home-workers in manufacturing and male home-workers in services as the status of self employment are essentially house-hold employment.

Table 5

Age Group	1999-2000				2009-2010			
	SE	RWS	CW	Total	SE	RWS	CW	Total
				Manufacturing				
Male								
15-30	26.41	37.36	36.23	100.00	21.19	42.57	36.24	100.00
31-50	31.1	45.03	23.87	100.00	29.55	38.98	31.47	100.00
Above 51	40.9	40.87	18.23	100.00	39.41	37.50	23.09	100.00
Total	30.03	41.24	28.73	100.00	26.97	40.37	32.66	100.00
Female								
15-30	51.83	23.36	24.81	100.00	53.90	21.76	24.34	100.00
31-50	53.67	18.84	27.5	100.00	57.45	14.72	27.83	100.00
Above 51	74.46	9.31	16.23	100.00	57.94	12.61	29.45	100.00
Total	54.57	20.12	25.31	100.00	56.04	17.41	26.55	100.00
				Services				
Male								
15-30	46.95	40.94	12.11	100.00	42.84	48.30	8.86	100.00
31-50	44.52	49.15	6.34	100.00	48.06	46.26	5.68	100.00
Above 51	49.8	45.26	4.94	100.00	54.22	41.49	4.29	100.00
Total	46.08	45.6	8.31	100.00	47.23	46.24	6.53	100.00
Female								
15-30	37.12	51.84	11.05	100.00	23.07	69.48	7.45	100.00
31-50	36.6	53.03	10.37	100.00	29.28	62.15	8.57	100.00
Above 51	48.28	41.14	10.57	100.00	38.27	50.79	10.94	100.00
Total	38.27	51.11	10.62	100.00	28.32	63.19	8.49	100.00

SE is self –employed, rws: regular wage and salaried, cw: casual workers

VI. IMPLICATIONS AND CONCLUSIONS

From the above analysis, it is evident that Indian economy is becoming a service driven economy more in terms of output than employment. The pre-reforms period was a period of high employment growth and rapid economic progress. However, in recent years, much of the rise in the service sector is because of lack of employment opportunities in other sectors of the economy. As a result, **a large proportion of the service sector jobs created during this period are of distress in nature - petty jobs taken up by the workers in the sectors like trade, hotels and restaurants - pushed out by agriculture and not absorbed by manufacturing.** There has also been creation of a handful of high-income jobs in the sectors like financing, insurance, real estate and business services that has been growth driven leading to accentuation of inequalities. Moreover, high-productive and high-income segments like financing, insurance, real estate and business services within the services are experiencing faster growth in terms of output. On the other hand, low-productive and low-income segments viz. trade , hotels and restaurants are experiencing rise in terms of employment. These factors should be kept in mind while drawing policy for the development of the service sector. We **did not find any acceleration in service-sector employment growth relative to manufacturing in the urban** areas of India. The good news is that young

males have increased their share of regular employment both in manufacturing and services. The service sector has turned out to be a boon for female workers. Both young and middle age female workers increased their share of regular jobs. Our results strongly suggest that services sector would be an unlikely destination for the millions of low skilled job seekers. **India needs to focus on manufacturing sector and agriculture sector too to provide large scale employment. Manufacturing has the capability because it has stronger backward linkages unlike the services sector. We cannot afford to neglect manufacturing at this stage of development.** The policy signals have to clearly say that we stand to support manufacturing activity in a big way. Manufacturing has the potential to grow as fast as services. Having found out the factors affecting the service sector, it is important to note that priorities are essential. While trying to move rapidly towards more open and competitive service markets, at both national and international levels, it is necessary to foster new employment opportunities in the service sector. A conducive fiscal environment and improvements in the functioning of labor markets and institutions are essential to adjust to globalization. A well functioning service sector provides important opportunities to strengthen employment and productivity. It also helps in strengthening the capacity of the country to adjust to economic globalization and to the growing importance of services and to its future growth. A comprehensive strategy is thus required to address the service sector challenges, which is well suited to Indian economy.

REFERENCES

[1] A. Maroto-Sanchez, “Growth and productivity in the service sector,the state of the art”, Institute of Social and Economic Analysis, WP No.07/2010, 2010, http;//www.iaes.es/iures sp/publications.htm.

[2] S. Joshi, “Tertiary sector-driven growth in India”, Economic and Political Weekly, vol. 39(37), 2004, pp. 4175-4178.

[3] J. Unni and G. Raveendran, “Growth of employment (1993-94 to 2004-05): Illusion of Inclusiveness?” Economic and Political Weekly,vol.42(3) ,2007, pp. 196-199.

[4] D. Mazumdar and S. Sarkar, “Growth of employment and earnings in tertiary sector, 1983-2000”, Economic and Political Weekly, vol. 42 (11), 2007, pp. 973-981.

[5] R. Majumder and D. Mukherjee, “Tertiarisation of Indian Labour Market: New Growth Engine or Distress Signals?”, Journal of The Asia Pacific Economy, vol.13 (4), 2008, pp. 387-413.

[6] S. Kuznets,"Modern economic growth: findings and reflections,"American Economic Review, vol. 63(3), 1973, pp. 247-258.

[7] A.G.B Fisher, The Clash of Progress and Security, New York, Augustus M Kelley, 1935.

[8] C. Clark, The Conditions of Economic Progress, MacMillan and Co. Ltd., London, 1951.

[9] J.Fourastié, 'Le Grand Espoir du XXe Siècle: Progrès Technique, Progrès Économique, Progrès Social', Presses Universitaires de France, Paris, 1949.

[10] S. Kuznets, "Quantitative aspects of the economic growth of nations:industrial distribution of national product and labour force",Economic Development and Cultural Change, vol. 5(4), 1957, pp.1111.

[11] H. B. Chenery and L. Taylor, "Development patterns: among countries and over time", The Review of Economics and Statistics, vol. 50(4), 1968, pp. 391–416.

[12] W. Baumol, "Macroeconomics of unbalanced growth: the anatomy of urban crisis", American Economic Review, vol. 56(5), 1967, pp. 415–426.

[13] T. Elfring, "New evidence on the expansion of service employment in advanced economies", Review of Income and Wealth, vol. 35(4),1989, pp. 409-440.

[14] R. B. Freeman and R. Schettkat, "Differentials in service industry employment growth in Germany and the US", Comparable German American Structural Database, European Commission, Brussels,1999.

[15]C. Freeman and L.Soete, "Technical change and full employment", Eds. Oxford: Basil Blackwell, 1987.

[16] M. Baily and R. Solow, "International productivity comparisons built from the firm level", Journal of Economic Perspectives, vol. 15(3),2001, pp. 151-173.

[17] A. Wolfl, "The service economy in OECD countries", Directorate for Science, Technology and Industry, Working paper no. 2005/3, OECD, Paris, 2005.

[18]R. J. Gordon and P.Gupta, "Understanding India's service revolution", IMF Working paper no. WP/04/171, IMF Washington DC, 2003.

[19] R. Banga and B. Goldar, "Contribution of services to output growth productivity in Indian manufacturing: pre and post reform", ICRIER working paper no. 139, 2004.

[20] National Sample Survey Organisation (NSSO), Employment and Unemployment in India, 2004-05, NSS Fiftieth Round, NSS Report', No 516, NSSO, New Delhi, 2006.

[21] R. Islam, "The nexus of economic growth, employment and poverty reduction: an empirical analysis", ILO Report, Recovery and Reconstruction Department, Geneva, 2004.

[22] S. Kapsos, “The employment intensity of growth: trends and macroeconomic determinants”, Employment Strategy Paper, No. 12, Employment Policy Unit, Employment Strategy Department, ILO, Geneva, 2005.

[23] M. P. Timmer, and G. J. de Vries, “A cross-country database For sectoral employment and productivity in Asia and Latin America, 1950-2005”, 10-sector database, Groningen Growth and Development Centre, Research Memorandum GD98,Groningen:UniversityofGroningen,2007,web:http://www.ggdc.net.

[24] R. Schettkat, and L. Yocarini, “The shift to services: A review of literature”, Structure Change and Economic Dynamics, vol. 17, 2006, pp. 127-14services. It increased for females in manufacturing and for males in services. This suggests an increasing number of female home-workers in manufacturing and male home-workers in services as the status of self employment are essentially house-hold employment.

[25] Falguni patnaik and narayan Chandra nayak,”Determinants of employment in service sector”