

The Comparative Growth of Service Sectors in Bangladesh

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Abstract

The Economy of Bangladesh is classified into three sectors. Of these, the average contribution of service sector, industry sector, agriculture sector to the GDP are 49.33%, 28.42% and 22.42% respectively. So, the service sectors contribute most of the development of national economy. The research aims are to analyze the comparative contribution of service sector with other sectors, the impact of trade liberalization of service sector and to provide the recommendations for development of service sector. It is taken a sample of ten years data of GDP from 2000-01 to 2009-10 for analyzing the comparison of service sector with other sectors (industry and agriculture). The average growth rates between service sectors and industry sectors or agriculture sector or total GDP are analyzed with 't' test. The average growth rate of service sector, industry sector, and agriculture sector are 6.17%, 7.49%, 3.21% respectively. The growth of service sector is more than the agriculture sector but less than the industry sector (result of 't' test). The paper also reveals that total trade deficit of service is increasing over the year. The average employment of Agriculture, Industry, Service to total employment are 58.89%, 12.39% and 25.36% respectively. The paper emphasizes for the development of Tourism sector, Software, Transportation and Financial service, Education with quality, etc.

Keywords: GDP, Service, Agriculture, Industry

1. Introduction

The Economy of Bangladesh is growing one. It is basically divided into three basic sectors viz. Service, Agriculture and Industry. Among the Economic Sectors in Bangladesh, Service sector is most important. The contribution of service sector to the GDP is about 50% (Bangladesh Economic Review-2010). So, Service sectors influence the development of national economy. There is a latent demand for services in Bangladesh. To specify the need of services for huge population of Bangladesh, such sectors are to be opened for private entrepreneurs with required control. The enormous contribution of service sector and an increasing trend therein have played an important role in high growth of GDP. The analysis of last few years' data gives a clear idea on the phenomenon. The contribution of the industry sector to the economy of Bangladesh has been increasing day by day. For the purpose of national income accounting, Bangladesh Bureau of Statistics (BBS) divides the economy into fifteen sectors (*Bangladesh Economic Review-2010, Ministry of Finance*).

2. Problem statement

From the growth of overall size of Economy, it is difficult to identify the significance of specific sector. Proper nurturing of significantly contributory sector, the growth of Economy may be resisted. Previously there was no difference between Services and Products. Service concept is the modern issue in the world. The most of the business is related to services. Even the product itself provides the service to the customers. So the services are the vital issue now. The economic sectors classified by Bangladesh Government are Hotel and Restaurant, Retail trade and Wholesale trade, Transportation and Communication, Real state and Renting, Financial Institution, Public Administration and Defense, Education, Health and Social Services, Community and Personal Services are included under Service Sectors. So they occupy a major share of total economics sectors. As a result, importance of service is significant. For Economic development we always think regarding industry and agriculture sectors rather service sectors. But major sector in the economy is service sector.

In the modern world, service is required in every phase of life. People expect better service. Our public sectors

including public enterprises are largest sectors in the economy. But these sectors are losing concern. The public sector is unable to provide competitive service. So, people go to private sectors such as financial institutions, transportation, hospitals, educational institutions, and communication media for better service. But the growth rate of service sectors is either below expected level or not as per its importance in the economy. From this research the problems of service sectors are identified. For increasing the living standard of the people the service concept has come to lime light. Service marketing and service management will get the importance to develop the service sectors in Bangladesh. The research aims are to analyze the comparative contribution of service sector with other sectors, the impact of trade liberalization of service sector and to provide the recommendations for development of service sector.

3. Objectives of the Study

Some specific objectives are set for this research. The principal objective of this study is to evaluate the comparative position of service sector. To accomplish this basic objective, following specific objectives are set:

- i. To conduct the comparative analysis of service sector with Agriculture and Industry sectors.
- ii. To analyze the impact of Liberalization on Service sectors
- iii. To provide the recommendations for development of Service sector.

4. Methodology

This research has used mostly secondary data have been used for analysis. Data have been collected from Bangladesh Economic Survey, Bangladesh Bureau of Statistics, Bangladesh Bank, World Bank, and Internet web sites, Books, Newspapers, Magazines and Journals. We have used required data for ten years from 2000-01 to 2009-10 for analyzing the contribution of economic sectors, growth rate of each sectors viz. service, industry and agriculture. Data of service export and import from 2004-05 to 2009-10 (five years) and the data of employment contribution for 9 years have been explained.

4.1 Analysis of data:

The data have been analyzed using graph, chart and some other simple statistical tools. The growth rate of service sectors (trend) is shown by graphical presentation. The total contribution of service sectors and sector wise share of major sectors are shown graphically. The average growth rates between service sectors and industry sectors or agriculture sector or total GDP have been compared by student's 't' test.

4.2 Hypothesis test

4.2.1 $H_0 : \mu_1 = \mu_2$ (There is no significant difference between the growth rate of service sectors and industry sectors.)

4.2.2 $H_0 : \mu_1 = \mu_2$ (There is no significant difference between the growth rate of service sectors and agriculture sectors)

4.2.3. $H_0 : \mu_1 = \mu_2$ (There is no significant difference between the growth rate of service sectors and the growth rate of total GDP)

5. Analysis and Results

5.1. The Contribution of Service Sector

Off all the sectors, service sector is prominent one. Service sector has the growing potential to be driver of sustainable economic growth and significant poverty alleviation in Bangladesh. Service sector in Bangladesh is the largest sector. From the table 2(a), it is observed that the contribution of the service sector is average 49.33%. It is steady over the period. The contribution of service sectors are 48.77% in 2000-01 and 49.90% in 2009-10. Figure-1 demonstrates contribution of different sectors in GDP. The growth rate of service sector is steady. The average growth is 6.17%. The growth rates are 5.43%, 6.40%, and 6.59% in 2001-02, 2005-06, 2009-10 respectively.

5.2. Growth of Sub-sectors of Service Sector

Growth rate of service sector is consistent and continuous. From the Table 1(b), it is shown that the four sub sectors –(i) Trade (ii) Transport, storage and communication (iii) Realstate renting and other Business activities (iv) Community, social and personal services contribute more in GDP which are 14.06%, 10.07%, 7.98%, 7.39%

respectively. But The growth rate is more for the Education, Banking, Public administration, Transportation which are 8.42%, 8.13%, 7.88%, 7.48% respectively.

5.3. Comparative Analysis of Service Sector with Agriculture and Industry Sector

From the comparative presentation of the sectors, it is found that service sector is sustainable in terms of growth and contribution to total GDP. From the Table 2(a), 2(b) and figure -2, it is shown that the average contribution of service sector, industry and agriculture sectors are 49.33%, 28.42%, 22.25% respectively. So, the service sector is the half of total sector of economy. The growth rate of service sector, industry sector, and agriculture sector are 6.17%, 7.49%, 3.21% respectively. Here, from the figure-2, it is seen that the contribution of service sector is steady. The contribution of industry sector is increasing with the reducing trend of agriculture sector. Here, apparently it is seen that the average growth rate of service sector is more than the agriculture sectors and the total GDP growth and the average growth rate of industry sector is slightly more than the service sector. Now we shall statistically test whether the average growth rate of service sector is more than the agriculture sectors and total GDP growth and whether there is significant difference of growth rate between service sectors and industry sector.

6. Hypothesis test

Since in the given data variances of population are unknown and the sample size is small we have used *t-test* from the table -6. The result of hypothesis test is in table 3.

6.1. $H_0 : \mu_1 = \mu_2$ (There is no significant difference between the growth rate of service sectors and industry sectors.)

Table 3: Paired Samples Test

Details	Paired Differences Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 Growth rate of Service sector - Growth rate of Industry sector	-1.3211	1.1152	.3717	-2.1783	-.4639	-3.554	8	.007
Pair 2 Growth rate of Service sector - Growth rate of Agriculture sector	2.7722	1.2957	.4319	1.7763	3.7682	6.419	8	.000
Pair 3 Growth rate of Service sector - Growth rate of Total GDP sector	.2956	.4806	.1602	-7.3847E-02	-.6650	1.845	8	.102

Source: Compiled by authors through SPSS

The table value is -2.306. So, the calculated value (-3.554) is outside the critical region. So, the alternative hypothesis is accepted. There is significant difference between the growth rate of service sector and industry sector. The growth rate of industry is more than that of service sector.

6.2. $H_0 : \mu_1 = \mu_2$ (There is no significant difference between the growth rate of service sectors and agriculture sectors)

The table value is 2.306. The calculated value (6.177) is outside the critical region. So, the growth of service sector is more than the growth of agriculture sector.

6.3. $H_0 : \mu_1 = \mu_2$ (There is no significant difference between the growth rate of service sectors and total GDP)

The table value is 2.3306. The calculated value (t=1.84) is inside the critical region. So, the null hypothesis is accepted. Though the average growth rate of service sector is more than the growth rate of total GDP, but there is no difference with t test.

7. Trade of service and Trade liberization

Trade liberization has opened a new horizon for service exports. Service export is the amount which is paid by the foreign national for using the service of Bangladesh. Service import is the amount which is paid by the Bangladeshi national for using the service of other countries. GATS was formed to eliminate the trade barriers. Here we shall see the impact of trade liberization on the service sectors of Bangladesh. From the table 4, the figure-3 is drawn. It is found from the figure -3 that the import of service average Tk.199368 million is more than the export of service average Tk.112214.5 million. The total trade deficit is increasing over the year. The average rate of growth of service export is more than service import which are 16.16% and 15.89% respectively. This is a good symptom for Bangladesh.

8. Employment opportunity in Service sector

Service sector has created a great scope for employment. Bangladesh is a labor intensive country. Population is an important resource of Bangladesh. From the table 5 (data is taken from world Bank data bank) the figure-4 is drawn and it is shown that average employment of Agriculture, Industry, Service to total employment are 58.89%, 12.39 and 25.36% respectively. But employment of service sector is increasing. The employment of industry sector is increasing but agriculture sector is decreasing.

9. Recommendations for Service Sectors

After analysis, it can be said that the contribution of service sector is about 49.22% and the growth rate of service sector is 6.175%. The contribution is about half of the total economic sectors and the growth rate is more than the average growth of GDP. Emphasis is given on the service sector for development. Since the industry sector is growing rapidly (7.49%), support can be given by providing the quality and smooth service. The employment in service sector is increasing day by day. So, there is lot of opportunity for employment in this sector. Though there is negative Trade Balance of service of Bangladesh, the growth rate of service export is more than that of import. It is a good symptom for us. So we have to emphasize the service export such as Tourism, Software, Transportation and Financial service etc. The prospects of some promising service sectors are pointed out below.

9.1. Development of Tourism

Tourism is one of the most promising sectors for Bangladesh with her huge natural beauty, heroic historical background and archaeological resources (Das & Chakroborty 2012). Bangladesh is a country of natural beauty. She has lot of tourism places. These places are of different interest like beaches, historical places, archaeological sites, religious palaces, forest and jungle etc.

9.2. Development of Software and IT

With the passage of time, the globe is being changed from analogue to automation. During last few years Bangladesh showed enormous success in Software and IT Sector which can enlarge the extent of her service market (BASIS 2010). The current size of Bangladesh IT Industry and software/ITES industry is still smaller compared to the overall economy and the number of population (over 150 million). Over the last few years the industry has been grown considerably and is expected to grow at that rate for some time.

9.3. Information Communication Technology (ICT)

With the hope of great development, the government of people republic of Bangladesh introduced National Information and Communication Technology (ICT) Policy in October 2002. This policy document guides the development of a country-wide ICT-infrastructure for human resources development, governance, e-commerce, banking, public utility services and all sorts of on-line ICT-enabled services by 2006.

9.4. Improvement in Transportation

Transportation is an important sub-sector of total service sector. It includes different type of transport for example road transport, waterways, railways, and airlines. Of these, road transport is mostly used means of transport. Road transport in Bangladesh is a private sector affair operating predominantly in domestic routes.

Rates are among the cheapest in the world. Express and non stop services are available. Total Highways is 204,022 km of which paved is 25,095 km and unpaved is 178,927 km (1996 est.) (*bangla2000.com*).

9.5. Quality Financial Services

Financial service is another important part of total service sector in Bangladesh. It is a promising sub sector which consists of the Bangladesh Bank (the central bank), four nationalized commercial banks (NCBs), 5 state-owned specialized banks (SBs), more than 30 private sector commercial banks (PCBs) and more than 9 foreign commercial banks (PCBs). The rest of the financial sector consists of more than 29 non-bank financial institutions, the capital market, 3 general and 17 life insurance companies, the cooperative banks and the micro-finance institutions.

9.6. Development of Education sector

For increasing of people and literacy rate, the demand of higher education is increasing. The technical institution, Business education, health education create the demand to the people. The development of government and private universities is the indicator of growing demand of education sector.

10. Concluding Remarks

The contribution of service sector is about 50 percent of the total GDP. So, the growth rate of GDP depends on the service sectors. The service sector provides the support for the development Industry sector and agriculture sector. For the international trade (export and import), the smooth transportations, financial and insurance service is required. For the improvement of the GDP sector, it has to give special emphasize on service sectors.

There is lot of scope of development of service sector. Bangladesh is providing transit and transshipment to India, Nepal and Bhutan that will increase return from the transportation and communication sector. The manufacturing sector is growing rapidly. So, the need of financial service and education is increasing in future. Tourism, hotel service is promising in Bangladesh. The trade liberalization on service will cause the opportunity for service export. So, we have to take the initiatives for development of service sectors. This paper has analyzed the comparative contribution of service sector, the growth of service sector, service export and the employment in service sectors. There is scope for further research about the ways of development of service sectors.

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Appendices

Table 1(a): Contribution of total service sector in GDP

	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
Trade (Retail & Whole sales	28021	29868	31687	33770	36155	38596	41700	44543	47309	49816
Hotel & Restaurants	1335	1427	1527	1635	1751	1881	2023	2176	2341	2519
Transport, Storage & Communication	19579	20863	22292	23676	25552	27592	29809	32357	34949	37464
Banking & Insurance	3270	3489	3722	3983	4338	4707	5139	5596	6099	6608
Real Estate, Renting & other Business Activities	18096	18715	19374	20068	20801	21569	22381	23221	24106	25033
Public Administration and Defense	5322	5637	5932	6351	6860	7420	8044	8543	9142	10505
Education	4651	5004	5384	5798	6256	6822	7433	8013	8658	9624
Health and Social Work	4548	4789	5059	5371	5768	6217	6693	7163	7678	8373
Community, Social and Personal Services	16538	17073	17640	18340	19082	19863	20733	21731	22753	23832
Total Service	101360	106865	112617	118992	126563	134667	143955	153343	163035	173774

Source: *Bangladesh Economic Review, 2010*

Table 1(b): Contributions and growth of sub sectors

Service sub-sector	Std. of Service sub-sector	Std. of Service sub-sector growth	Avg. Contribution %	Avg. of sub-sector total	Avg. of sub-sector growth
Trade (Retail & Whole sales	7526.08	0.75	14.06%	38146.50	6.60
Hotel & Restaurants	398.47	0.29	0.68%	1861.50	7.31
Transport, Storage & Communication	6109.71	0.80	10.07%	27413.30	7.48
Banking & Insurance	1140.47	1.04	1.72%	4695.10	8.13
Real Estate, Renting & other Business Activities	2336.93	0.14	7.98%	21336.40	3.67
Public Administration and Defense	1678.77	2.85	2.71%	7375.60	7.88
Education	1647.75	1.17	2.48%	6764.30	8.42
Health and Social Work	1289.33	1.17	2.27%	6165.90	7.02
Community, Social and Personal Services	2471.01	0.58	7.37%	19758.50	4.14
Total	24576.02	0.54	49.33%	133517.10	6.17

Source: *Bangladesh Economic Review, 2010*

Table 2(a): Sector wise contribution in GDP (in percentage)

	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	STDEV	Average
Contribution of Agricultures	25.03	23.98	23.47	23.08	22.27	21.84	21.38	20.83	20.48	20.16	1.6	22.25
Contribution Industry	26.20	26.75	27.24	27.69	28.31	29.03	29.45	29.70	29.86	29.95	1.38	28.42
Contribution of service	48.77	49.27	49.30	49.22	49.42	49.14	49.17	49.47	49.66	49.90	0.31	49.33
Total	100	100	100	100	100	100	100	100	100	100	0.00	100

Source: Bangladesh Economic Review, 2010

Table 2(b): Sector-wise growth of GDP (in percentage)

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	STDEV	Average
Agriculture	0.01	3.08	4.09	2.21	4.94	4.56	3.21	4.12	4.39	1.53	3.21
Industry	6.53	7.26	7.60	8.28	9.74	8.38	6.78	6.46	6.42	1.13	7.49
Service	5.43	5.38	5.66	6.36	6.40	6.90	6.52	6.32	6.59	0.54	6.17
Total GDP	4.42	5.26	6.27	5.96	6.63	6.43	6.19	5.74	6.00	0.68	5.88

Source: Bangladesh Economic Review, 2010

Table 2(c): Growth of service and other sector (Chain base)

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	STDEV	Average
Service	5.30	5.64	6.17	7.39	7.78	7.66	7.02	7.19	9.05	1.17	7.02
Other Sectors	3.52	5.14	6.82	5.59	6.83	6.01	5.89	5.21	5.46	1.00	5.61
Total GDP growth	4.42	5.26	6.27	5.96	6.63	6.43	6.19	5.74	6.00	0.68	5.88

Source: Bangladesh Economic Review-2010

Table 4: Service Receipts and Payments (in million Taka)

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	SDEV	Average
Service Receipts	75067	89780	102352	129103	122451	154534	28849.471	112214.5
Growth of Service Receipts		19.60%	14.00%	26.14%	-5.15%	26.20%		16.16%
Service Payments	124871	156279	189649	231667	236634	257108	51510.798	199368
Growth of Service Payment		25.15%	21.35%	22.16%	2.14%	8.65%		15.89%
Services(net)	(49804)	(66499)	(87297)	(102564)	(114183)	(102574)	24606.842	(87153.5)
Growth of Service (net)		33.52%	31.28%	17.49%	11.33%	-10.17%		16.69%

Source: Bangladesh Balance of Payment-2010, Bangladesh Bank

Table 5: Employment contributions

Year	1984	1985	1986	1989	1991	1996	2000	2003	2005	SD	Avg.
Employment in agriculture (% of total employment)	58.8	57.7	57.1	64.9	66.4	63.2	62.1	51.7	48.1	6.06	58.89
Employment in industry (% of total employment)	11	11.5	12.5	15.4	13	9.6	10.3	13.7	14.5	1.95	12.39
Employment in services (% of total employment)	24.2	26	26.5	14.8	16.2	25	23.5	34.6	37.4	7.35	25.36

Source: World development index, World Bank

Table 6: Growth of economic sectors

Sectors	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	STDEV	Average
Agriculture	0.01	3.08	4.09	2.21	4.94	4.56	3.21	4.12	4.39	1.53	3.21
Industry	6.53	7.26	7.60	8.28	9.74	8.38	6.78	6.46	6.42	1.13	7.49
Service	5.43	5.38	5.66	6.36	6.40	6.90	6.52	6.32	6.59	0.54	6.17
Total GDP	4.42	5.26	6.27	5.96	6.63	6.43	6.19	5.74	6.00	0.68	5.88

Source: Bangladesh Economic Review-2010, Ministry of Finance

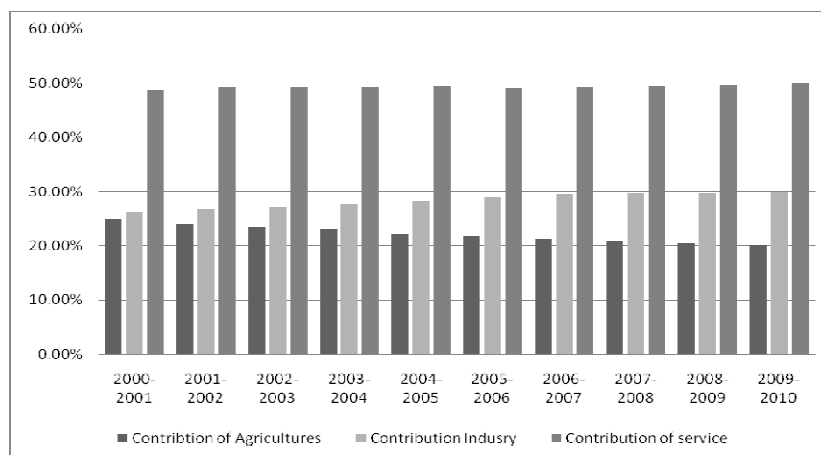


Figure 1: Contribution of Service, Industry and Agriculture

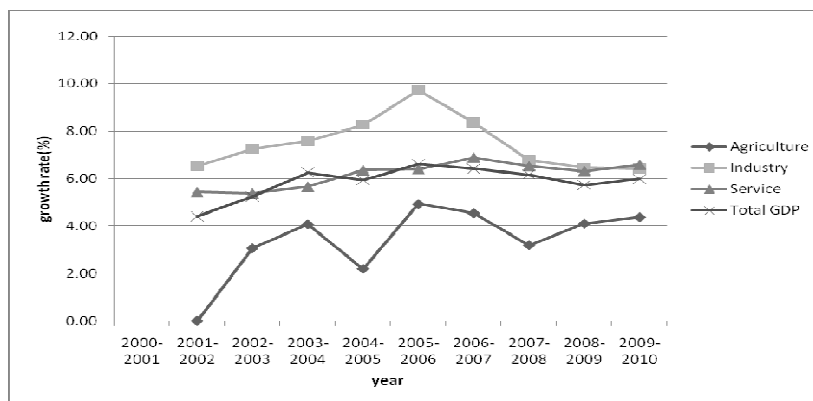


Figure 2: Comparative Sector-wise Growth Rate

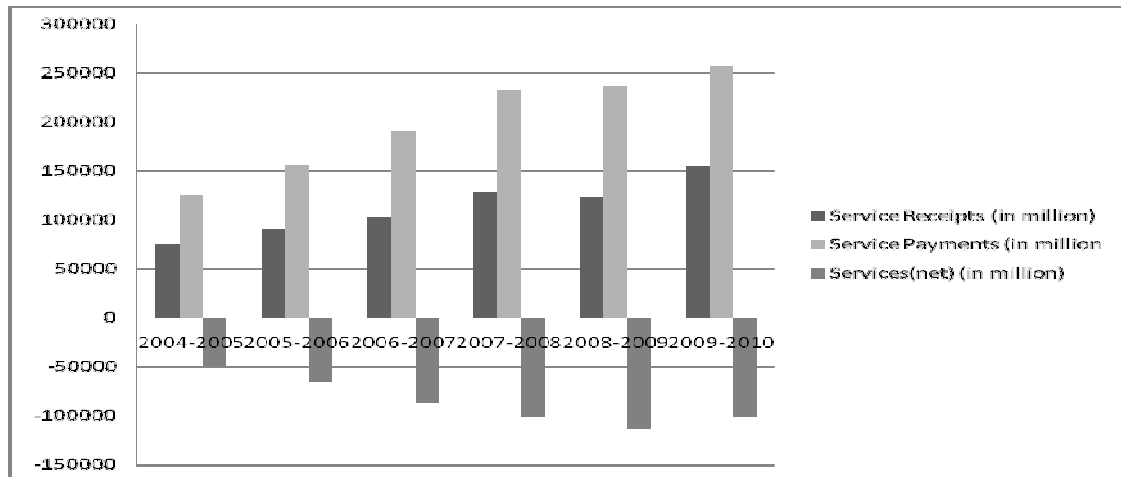


Figure 3: Service Export and Import

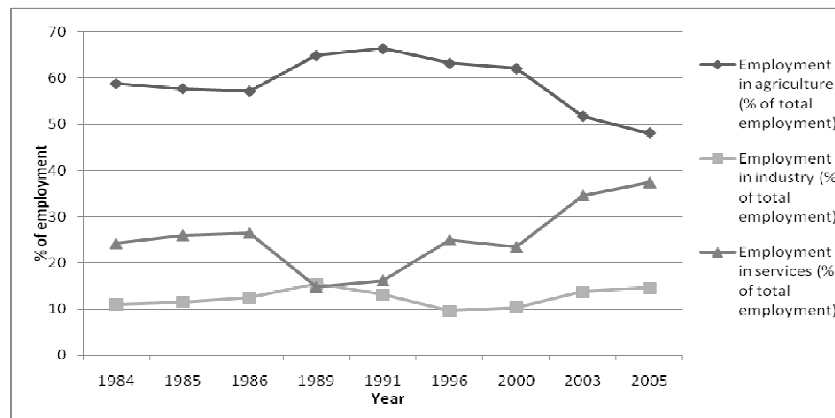


Figure 4: Employment of Service Sectors.

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