

IMPACT OF SERVICE SECTOR ON GROSS STATE DOMESTIC PRODUCT (GSDP) OF DELHI, INDIA

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ABSTRACT

The service sector has been playing significant roles in GSDP of Delhi and Indian economy in general and has been contributing to Delhi's economic growth. This research paper analyses impact of service sector on GSDP of Delhi and the contributions of service sector to GSDP of Delhi. Secondary data was collected from secondary

source, which was the hand book of statistics on Indian economy by RBI. Simple linear regression was used for the analysis of the data collected on Services sector and State Gross Domestic Product. The research hypothesis was tested with the aid of simple linear regression at (alpha) 5% level of significant. The study reveals that statistically there is significant relationship between the Services Sector and GSDP of Delhi. It also clearly reveals that the contribution of tertiary sector consisting of Banking, Insurances, and communication technologies to the GSDP of Delhi is continuously showing a progressive behaviour during the last eleven years. And the study recommends that there is a need to pay attention towards improving advance technical skill and education to the workers to cope with the global requirements and more absorption of labour in sophisticated industries, financial, trade, transport and communication services. There should be dynamic leadership at all level of the state, national and local level which should tackle the issue of corruption, nepotism, Quality education with equal and uniform consideration that lead to improvement of services sector, which ultimately can play a significant role in uplifting the economy and bringing the nation to a better and developed position.

Key words: Service sector, Economy, State Gross Domestic Product, Developed and Developing countries

INTRODUCTION

Services are widely used by people every day in all aspects of human life. Services sector is largest and fastest growing sector in the world economy, accounting largest share in total output and employment in most developed countries of the world. The sector accounts for a significant and rising share in cross-border trade and foreign direct investment and gives more export opportunities for services providers and reduces costs for imported services. It is expected that rising trend of services sector would continue to gain more and more advantages through advancement in the area of knowledge based and skill oriented activities. Services play a central role in the economies of both developed and developing countries. They account for over fifty percent of the gross domestic product of all developed economies and constitute the single largest sector in most developing economies. Parashar (2013) the services sector encompass Banking, Insurance, Health, Trade, Hotels & Restaurants, Construction, Electricity, Transport, Storage, Communication, Transportations, Education & Research, Ownership of Dwellings, Real Estate & Business Services and Other Services (Business Services, Computer & Related Services, Legal Services, Real Estate Activities, Renting of Machinery & Equipment and Social & Personal Services). Main reasons behind the growth of services include rapid urbanization, the expansion of the public sector and increased demand for intermediate and final consumer services. The successful growth of the primary and secondary activities in the economy, to a great extent, is largely dependent on services offered by banking, insurance, trade, commerce, entertainment, maintenance of machinery and equipment and numerous other services categorized as tertiary activities (Soni&Parashar, 2013). However, State Domestic Product (SDP), is the total value of goods and services produced during any financial year within the geographical boundaries of a state. Also called the state income, SDP is always calculated or estimated in monetary terms, and is instrumental in the assessment of per capita income. It serves as good indicator for measuring economic prosperity of the State and to study the structural changes taking place in the economy. SDP estimates over a period of time reveal the extent and direction of the changes in the level of

economic development. Sectional Composition of SDP gives an idea about the relative position of different sectors in the economy over a period of time, which not only indicates the real structural changes taking place in the economic, but also aids in formulation of the plans for total economic development. The major share of income of National Capital Territory of Delhi is from the service sector which is treated as the growth engine for fast developing states in the Indian Union. Fisher (1935) and Colin Clark (1940) classified the economy into three groups which include primary sector, secondary sector and tertiary sector. The primary sector covers tangible goods in agriculture, forestry, fishing, and hunting. The secondary sector includes mining, manufacturing and such activities as gas, electricity and water supply involving activities with a tangible and product. The tertiary sector comprises of trade and public services. But this is not a clear cut division on economic activities as economist change the activity in the list and also there is overlapping of economic activities. Misra and Puri, (2009) reveals that, today in India service sector accounts more than 50 percent of India's Gross Domestic Product (GDP). There is a significant change in sectoral contribution of each sector to India's GDP over a period of time. In 1950-51 the primary sector was contributing about 56.5 percent to the Indian GDP. It is followed by the secondary sector with 13.6 percent and tertiary sector with 29.9 percent. During 1990-91 the share of agriculture sector in India GDP was 34 percent. It was followed by secondary sector with 23.2 percent and tertiary sector with 42.8 percent. During 2007 the contribution of primary sector came down to 18 percent, and industrial sector increased to 29 percent and tertiary sector to 53 percent (Misra and Puri, 2009). During 2008-2009 the share of primary sector was 15.7 percent, the share of secondary sector was 28 percent and the share of service sector was 56.4 percent (GOI, 2010) which highlights the fact that the share of tertiary sector is raising constantly over a period of time. In any country, economic development depends on the growth and evolution of the three sectors of the economy. However in recent years the service sector is growing at a very faster rate in the developing countries and is contributing a major share in terms of output, income and employment. Even the productivity per employee is becoming greater in service sector when compared to agriculture and industrial sectors. Already the service sector has emerged dominant in the developed countries. If agriculture sector is stationary, new service activities are emerging and adding to the service sector leading the economy to better level. Hence service sector is playing a major role in economic development of any country.

RESEARCH GAP

India stands as one of the leading economies and its growth has been largely facilitated by the Service sector. It's a larger part of the Indian economy both in terms of employment opportunities and its contribution to Indians income. Demand and supply forces have led to this growth. In the demand side high growth of services in the economy was mostly due to the factors such as the increasing factor input usage of services by other sectors of the economy. In the supply side is the increased trade in services following trade in liberalization policies and other reforms of 1990s that made this sector growth. The trade liberalization is responsible for the development of finance, transport communication and other services, which including in services of hotels and restaurants. Along with this the increase in demand for health and education also led to expansion of this sector. The services sector in future is predicted to be providing about the 70 per cent of the new employment opportunities in the economy as the share as the agriculture in total employment already falling, although the covid-19 issues has been greatly affecting the contributions of service sector to the economy of Delhi and India

at large. There are so many empirical studies carried out with regard to service sector of Indian economy, but only few of them analyzed that of Delhi's service sector. And also based on the literature reviewed, studies about impact of service sector on the economy of Delhi in particular are not sufficient. Therefore, the present study was conducted to add little idea to the existing gap by examining the impact of service sector on GDP of Delhi.

OBJECTIVES OF THE STUDY

The main objective of the study was to assess the impact of service sector on gross state domestic product (GSDP) of Delhi, India. However, the specific objectives were;

- I. To examine the relationship between service sector and gross state domestic product (GSDP) of Delhi, India.
- II. To assess impact of service sector on gross state domestic product (GSDP) of Delhi, India and
- III. To identify the roles of service sector on gross state domestic product (GSDP) of Delhi, India.

RESEARCH QUESTIONS

- I. What is the relationship between service sector and gross state domestic product (GSDP) of Delhi, India.in Delhi?
- II. To what extend doesservice sector impact gross state domestic product (GSDP) of Delhi, India and?
- III. What are the roles of service sector on gross state domestic product (GSDP) of Delhi, India.in Delhi?

RESEARCH HYPOTHESES

HO:There is no significant relationship between service sector and gross state domestic product (GSDP) of Delhi, India.

HI:There is significant relationship between service sector and gross state domestic product (GSDP) of Delhi, India.

LITERATURE REVIEW

Clark (1941) Kuznuts (1957) and Fuchs (1980) observed that shifting the population or structure changes from agriculture to manufacturing and from manufacturing to services as a result of economic development. Kongsamut, et al. (2001) estimated for one hundred and twenty three countries from 1970-80 with increased in services sector activities, increased per capita GDP of these economies. These economies move from agricultural sector to more in services sector and less in industrial sector. Rath, et al. (2006) analyses that higher growth in services sector brought about India's economic growth. World Trade Organization (WTO) identified twelveareas constituting of one hundred and sixty one sub-sectors of the services. The primary sectors are construction, computer and software development, engineering services, professional services (marketing, audit/accounts, taxation and legal extra.), banking, insurance, communication, tourism and business services.General Agreement on Trade in Services (GATS), the WTO (1999) intends to liberalizing trade in services among its member countries. Trade in services has been refers in terms of the following four styles covered.Cross-border Supply, this is the possibility for non-resident services providers to supply services cross border into member territory. Consumption Abroad, this is the freedom for the resident of one country to

appreciate and use from territory of another nation. Commercial Presence, This is the opportunities for one country to establish joint venture, foreign centered corporation or expand a commercial presence to provide services for the citizens of their own nation, such as establishment of subdivision office and agencies to offer services of banking, insurance, communication and legal advice. Presence of Professional Persons, these are the chances for the entry and ad hoc stay in the member territory of foreign persons in order to supply services. Eichengreen and Gupta, (2010) based on the global trend, service sector in India has also grown rapidly in the last decade. Its growth has in fact been higher than the growth in agriculture and manufacturing sector. It contributes around 64.8 % of GDP in 2012-2013. In the trade activities, services trade has also grown at the same rate as goods trade over the 1990s. Parashar (2013) found out that Delhi's service sector has expanded as a result of large skilled English-speaking workforce that has fascinated many multinational companies. Key service industries comprise information technology, telecommunications, hotels, banking, media and tourism. Parashar (2013) revealed that the Government of Delhi recognized the huge potential of IT and has decided to embark upon an ambitious journey to proclaim the benefits of IT to the people of the state. Delhi would emerge as a premier cyber state in the country with its citizens qualifying to be e-citizens. Fuch (1968) found that the income elasticity demand for services United States is 1.12 and for goods is 0.93 during the period of 1925 to 1967. Summer (1985) estimated that the elasticity of demand by using cross sectional data. The outcome reveals that service like medical care and housing has income elasticity greater than unity, while the income elasticity for education, transportation and communication is less than unitary. Thus, there are different opinions about the factors that increase the demand of services. Gershuny (1978) shows that in United Kingdom's relative demand of service was constant during the period of 1954 to 1974; however, the larger proportion of income was spent on services.

RESEARCH METHODOLOGY

The study was based on secondary data. It was time series data obtained from secondary source which was the handbook of statistics on Indian economy by Reserve Bank of India, it constitutes information about service sector and GSDP of Delhi's economy, was collected from the period of 1990-2019 through content analysis and extraction which led the study to adopt available data method. Data gathered were analyzed with the aid of simple linear regression analysis. Hypothesis was tested at 5% level of significant. And relevant data from various publications, journals, research works, and textbooks were used for the review of literature of the study.

DATA PRESENTATION AND ANALYSIS

Secondary data related to Gross State Domestic Product and Service Sector of Delhi was collected from the handbook of statistics on Indian economy by Reserve Bank of India. The data covers the period of twenty nine years (1990 to 2019).

Table one: Time series information on Gross State Domestic Product and Service Sector of Delhi, India.

DELHI'S GSDP AND SERVICES SECTOR FROM 1990 TO 2019.			
S/N	YEARS	GSDP	SERVICES SECTOR
1	1990-1991	2726841.00	2139073.00
2	1991-1992	3149920.00	2453681.00
3	1992-1993	3302188.00	2568490.00
4	1993-1994	3460505.00	2762068.00
5	1994-1995	5522016.00	4437515.00
6	1995-1996	5760469.00	4569266.00
7	1996-1997	5983154.00	4827699.00
8	1997-1998	6435292.00	5117480.00
9	1998-1999	6800707.00	5479456.00
10	1999-2000	7598208.00	6020282.00
11	2000-2001	10032452.00	8072675.00
12	2001-2002	11040607.00	8982355.00
13	2002-2003	12407958.00	10209586.00
14	2003-2004	13796086.00	11494288.00
15	2004-2005	15579109.00	13150450.00
16	2005-2006	16863753.00	14386938.00
17	2006-2007	18076539.00	15739270.00
18	2007-2008	19027642.00	16788820.00
19	2008-2009	20399317.00	17788820.00
20	2009-2010	21999111.00	19665920.00
21	2010-2011	23802650.00	21349419.00
22	2011-2012	34379750.00	25296499.00
23	2012-2013	36662837.00	26675279.00
24	2013-2014	39290838.00	28320089.00
25	2014-2015	42889924.00	32001773.00
26	2015-2016	47405772.00	34974705.00
27	2016-2017	51487079.00	37463822.00
28	2017-2018	55679993.00	401181306.00
29	2018-2019	55755423.00	401221123.00

Source: Handbook of statistics on Indian economy by Reserve Bank of India

Table Two: Outcome of analysis of Correlation between the Services Sector and GSDP of Delhi obtained through SPSS

		Correlations	
		GSDP	Services Sector
Pearson Correlation	GSDP	1.000	.566
	Services Sector	.566	1.000
Sig. (1-tailed)	GSDP	.	.001
	Services Sector	.001	.
N	GSDP	29	29
	Services Sector	29	29

Source: SPSS output

The table two above shows that the correlation coefficient (R) is 0.56. This means that there is a weak or moderate positive relationship between the Services Sector and GSDP of Delhi. However, in any research work correlation is used to examine the Direction and Strength of the relationship between two or more variables and the value of correlation lies between plus one and minus one. Thus, there is a positive but weak/moderate relationship between Services Sector and GSDP of Delhi.

Table Three: Result of analysis of simple linear regression method on the Services Sector and GSDP of Delhi obtained through SPSS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.566 ^a	.320	.294	13495236.70033	.320	12.259	1	26	.002

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a. Predictors: (Constant), Services Sector of Delhi

b. Dependent Variable: Delhi's GSDP

The table three above depicts that the value of R is 0.566 which was interpreted in table two and it means there is positive moderate relationship between the two variables under consideration. The value of R-SQUARE is 0.320. This means that only 32% of the changes of dependent variable (Delhi's GSDP) can be explained by the independent variable (Services Sector) in other words only 32% of changes in dependent variable (Delhi's GSDP) can be explained by the explanatory variable (Services Sector of Delhi). This means that the 68% of the explained variable can be determined by other factors and it can be rightly concluded that Services Sector of Delhi is not an important determinant of GSDP of Delhi.

Table four: Result of analysis of coefficients model of simple linear regression method on the Services Sector and GSDP Delhi obtained through SPSS

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	15896148.620	2733601.544		5.815	.000	10277150.172	21515147.068
	Services Sector	.123	.035	.566	3.501	.002	.051	.195

a. Dependent Variable: Delhi's GSDP

The table four above shows that the significant Value is 0.00. This means that the P-Value is less than the Alpha value which is 0.05. (Significant value 0.00 < Alpha Value 0.05). However, the table also depicted the value of $b_0=15896148.620$ and the value of $b_1=0.123$. Therefore, to obtain the regression line as follows; $Y = a + bx$. Substituting the values, we have $Y = 15896148.620 + 0.123x$

TEST OF HYPOTHESIS

HO: There is no significant relationship between the Services Sector of Delhi and Delhi's GSDP

HI: There is significant relationship between the Services Sector of Delhi and Delhi's GSDP.

To test the hypothesis the Alpha value is 0.05 and the significant value is 0.00. Since the alpha value is greater than the p-value or the significant value, the null hypothesis is rejected and the Alternative hypothesis is not rejected. Thus, the study concludes that statistically there is a significant relationship between the Services Sector and GSDP of Delhi.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This study is an attempt to analyse the relationship between services sector and GSDP of Delhi. The higher growth of service sector gives a new dimension of stability of Delhi's economic growth. The analysis shows that, there is a positive but weak/moderate relationship between Services Sector and GSDP of Delhi. Services are broadly used by people every day in all aspects of their lives. Services sector is largest and fastest growing sector in the world economy, accounting largest share in total output and employment in most developed and developing countries of the world. The sector accounts for a significant and increasing share in cross-border trade and foreign direct investment (FDI) and gives more export opportunities for services sellers and lower costs for imported services. As a common phenomenon observed in most of the cities economies, Delhi is also showing same significant relationship between the Services Sector and GSDP. The percentage distribution of GSDP of Delhi at constant prices showed that there is significant relationship. Parashar (2013) The services sector includes of Banking, Insurance, Health, Trade, Hotels & Restaurants, Construction, Electricity, Transport, Storage, Communication, Transportations, Education & Research, Ownership of Dwellings, Real Estate & Business Services and Other Services (Business Services, Computer & Related Services, Legal Services, Real Estate Activities, Renting of Machinery & Equipment and Social & Personal Services). Main idea behind the growth of service includes rapid urbanization, the expansion of the public sector and increased demand for intermediate and final user services. It was witnessed that shifting the population or structure changes from agriculture to manufacturing and from manufacturing to services as a result of economic development. Kongsamut, et al. (2001) assessed that for 123 countries from 1970-80 that with increase in services sector activities raises the per capita GDP of these economies. These economies move from agricultural sector to more in services sector and less in industrial sector. This helps to reduce the poverty and improve the quality of life. Through increasing trade and investment, services sector leads to economic growth and competition among other sectors. And there is also statistically significant relationship between the Services Sector and GSDP of Delhi. The analysis of Services sector and Gross State Domestic Product also clearly shows that the contribution of tertiary sector to the GSDP of Delhi is continuously showing a progressive behaviour during the last eleven years. The study recommends that the measure and strategy for improving the growth of the services sector and to provide a package of policy reform so that the services sector emerges as a key sector for growth, employment, and poverty reduction. In the context of the services sector, information technology will best be used for cluster based development. There is need to pay attention towards improving advance technical skill and education to the workers to cope with global requirements and more absorption of labour in sophisticated industries, financial, trade, transport and communication services. There is also a pressing need to find new avenue of service sector. In order to improve research and development, technology up-gradation and Man Power development particularly, management improvement and reformed policy environment will have to be formulated. There is also a need of dynamic leadership at all level, national and local level which should be

tackle the issue of corruption, nepotism, Quality education with equal and uniform system that can lead improvement of service sector, which ultimately can play a significant role in uplifting the economy.

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