Journal of Advances and Scholarly Researches in Allied Education
Vol. 16, Issue No. 9, June-2019, ISSN 2230-7540

An Analysis and Comparison of Data With Regard to the Contribution of the Major Sectors of the Indian Economy in the Overall GDP

Ujjawal Kher*

Abstract – Indian economy is distinguished by the complex combination of agricultural, manufacturing and service economic activities. Alternatively, the Indian economy may be narrowly categorized into major industries, including the main, secondary and tertiary sectors, most generally referred to as the agriculture, manufacturing and services sectors. A paradigm change in Indian economy was observed with the introduction, in 1995, of the New Economic Strategy, which diluted the model of mixed economy and opened up India's economy. The pace of economic growth was accompanied by economic liberalization initiatives, including corporate reform, privatization of state-owned companies and decreased external trading and investment restrictions. The goal of this research analysis is to examine and compares data concerning the contributions in the country's total GDP from the key sectors of Indian economies (i.e. agriculture, industry and services) during 1995-96 to 2014 - 15. GDP details from secondary sources have been extracted (Open Government Data Platform India). Furthermore, statistical methods and analyses such as correlation analysis, variance analysis and F-tests were used to draw useful conclusions from the available secondary data.

The analysis concludes that the output of the major sectors in the 1990-91 to 2009-10 era in terms of GDP contribution is important. The rising share of the service sector in the country's total GDP suggests that we are a developed nation that is struggling to expand. All developing economies worldwide have ample share in their respective GDPs in the service sector, so if our country is still moving in the same direction, there is no damage. The main challenge in our economy is that industry's GDP projections and business employment have a substantial difference.

Keywords: GDP (Gross Domestic Product), Indian Economy, Major Sectors

----------X----------

INTRODUCTION

An Overview on Indian economy

The Indian economy was in considerable difficulty at the time of independence. As a colonial economy, it served the needs of Britain and the British for growth and progress. In the agricultural and manufacturing fields, the state that was supposed to have been responsible for breakthroughs refused to play a minor part. On the other side, the world saw accelerating agricultural and industrial growth in India in the half century before India's independence owing to the active position played by the autonomous Indian States. Britain's politicians never made any major social-sector improvements, which hindered the economy's productive potential. Therefore, the Indian government confronted a real challenge after India became autonomous, systemic organization, and economic restructuring. Need of the day was greater for progress, stability and the greatest challenge before the leadership of the period when the nation held its obligations and vibrations.. By 1991, several significant and vital decisions now influencing the economic journey of India were made. The New Economic Strategy was introduced in 1995, and the Indian economy shifted markedly as a dilution of a mixed-economic paradigm and licensing raj structure and a globalization of the Indian economy.

In India, the consumer economy is rising, but remnants of its former self-sufficient policies remain. Economic liberalization policies in the early nineties, including restructuring of business, privatization of state-owned enterprises and abolition of trade and acquisition constraints started to boost development in the nation from 1997 to 2017, with average growth of almost 7% annually.

India has a relatively optimistic overall growth outlook owing to young demographics and the resulting low dependency, Strong saving and usage rates and rising global economic penetration. But longer-term issues such as girls' sexism, insufficient power and delivery, weak defense of intellectual property rights, decades of civil litigation dockets, weak transportation and agricultural services remain important.

Indian Economy's major sectors

There are so many company practices surrounding us every day. Every minute we're accompanied by such activities from agriculture to development and services. An economy comprises all customers, development, trade of products and services activities. It extends to everyone, from people to businesses and governments. The economic situation in a nation is guided by the country's community, rules, history, geography and so many other factors. No two economies are the same because of this. The economy of India is indeed special. It consists of important industries, namely central, secondary and tertiary. These main industries include the different economic activities. A summary of these three sectors is given as follows—

Agricultural Sector (i.e. Primary Sector) — The primary sector involves the processing of the products utilizing natural resources. The turn into primary products of natural resources. It forms the foundation for all our other goods. The primary sector in India is the industry primarily based in order to generate products and to perform different processes on the availability of natural resources. The natural goods we get mainly come from agriculture, milk, fisheries and forestry. Agriculture is the easiest example to speak about in this field. Dairy, fisheries and forestry are other examples of this field, but agriculture is the biggest in the sector. This is why the field of agriculture is widely called.

Sub-jobs, disguised employment and poor competitiveness are the main problems in this field. This sector had the highest share of India's GDP at the time of India's independence. Year after year, though, its contribution declined and just 14.64% of the country's GDP went into 2014-15. It must be noted that in 2014-2015, 51% of the country's population was working in the agriculture sector.

Industrial Sector (i.e. Secondary Sector) — The secondary sector comprises operations in which natural resources are processed and subsequently used to consume in other types or finished goods. The product must be manufactured and thus a certain production method is necessary. The output may be carried out in a warehouse, workshop or in the house. Using cotton fibers, for example, to produce jaggery and refined sugar or to spin yarn and to weave fabric. The development method is typically related to the numerous forms of enterprises that develop; this is also often called the industrial field. In the secondary sector or the manufacturing sector the light industry and the heavy industry is normally separated. Light industry includes goods which need less capital and which are more consumer-oriented, for instance. Clothing, accessories, chairs, etc. Output. The heavy industry includes either heavy-weight goods or products that are part of their manufacturing phase. They need immense money and specialized resources and services, for example. Heavy equipment, heavy vehicles, cranes, etc.

Again, mines, quarries, processing, power, construction and water supply etc. are included in this field. In 2014-15, the industry increased its national GDP by 28.27 percent and accounted for nearly 22 percent of the total employees in the region. It can be the backbone of all economies.

Service Sector (i.e. Tertiary Sector) — In the growth of the primary and secondary sectors, the efforts of the tertiary sector aid. This does not generate something positive, but it is a help or encouragement for the phase of development. In order to sustain growth and commerce, for example, bank borrowing capital would require transport facilities for the retail sector, or goods produced in primary or secondary industries. Transportation, storage, correspondence, business, banking, commerce, hospitality, tourism included in the Tertiary market. Because third-sector operations provide services rather than products, they are sometimes listed by the service industries.

This is the fastest growing field in the Indian economy. It contributes as much as possible to the country's GDP. During 2009–10, this sector represented 57.09% of GDP across the region. It is also recalled that just 27% of the population of the world was employed in the services sector in 2014–15. Agriculture during 2014-2015. It is also the backbone of the Economy.

Measurement of an Economy

The GDP reflects a general measure of a country's overall economic output. One of the main indicators is the wellbeing of the economy of a region. GDP can be one of the economic development or indices of output most commonly employed. The monetary value of all goods and services generated within a country's borders is defined in a given era. GDP comprises public and private consumption, public expense, investment, supplements for private stocks, paid-in construction expenses and foreign exchange balances (i.e. exports are added and imports are subtracted).

They are the GDP power for an economic study and for a sky satellite to calculate weather around

the continent. Samuelson and Nordhaus summaries in their economic books in particular the importance of their national accounts and GDP. GDP helps politicians and central banks to assess if the economy is shrinking or expanding, if lifting or retaining is necessary and if a threat like slowing down or inflation is increasing.

GDP is in reality a fair indication of the economy and, through improving analysis and data efficiency, figures and governments aim to assess steps for strengthening GDP and rendering it a complete national income predictor.

There are different components in the GDP estimation. The expense method (the sum of what everyone of the economy pay over a specified time period) or the revenue approach may be used to measure GDP. The same findings can be obtained for both processes. In the estimation of GDP for manufacturing, a third form is the value-added strategy.

GDP dependent on spending generates actual (inflation-adjusted) and nominal values, whereas income-related GDP estimates are rendered on the nominal basis only. The more traditional method in spending is to measure GDP by summarizing consumer, industrial, government and net expenses. Therefore, “GDP is = C + I + G + (X – M)” where C is consumptive investment, I is industrial, G is public expenditure, X is exports and imports.

OBJECTIVE

The principal aim of this report is the review and evaluation of the contribution in the country's total GDP from 1995-94 to 2014-15 of the three major sectors (the farming, manufacturing and service sectors). This study therefore offers some useful conclusions.

LITERATURE REVIEW

Many researched the connection between economic growth and macro-economic variables such as inflation, interest rates, industrial development, work creation, etc.

Aravind Veeramani (2019) In India, the inverted curve was summarized in U-like terms and accelerated from a lower of 5.5% in 2012–2013 to a maximum of 8.2% in 2016–2017 and then slowed to 6.8% in 2018–198. The inverted curve in India was summarized in U-like phrases.

Studies by **Loto, (2012) and Papola T.S. (2013)** Strong growth sectors such as manufacturing, which have high labour elasticity, good pay or demand and high export growth, have stressed the role.

Studies by **Friedman (1973), Mallik & Chowdhury (2001) and Behera (2014)** Study on economic development and its connection to inflation has been carried out. The inflation and economic growth trends in South Asian countries have been seen in two studies by **Mallik & Chowdhury (2001) and Behera (2014).** The long-term positive association between inflation and economic growth in the sample variables has been statistically demonstrated.

Hasan, et al (2003) & Goldar (2011) The study held that states that have introduced improvements in laws and regulations friendly to business have seen faster job growth in organized manufacturing.

Manjushree Paruchuru (2020) India faces many hurdles to rising growth at 7-7.5% a year in the rapidly evolving environment in 2016-17 and 2017-18. It has set an annual goal of 8%, but is projected to raise by 10% annually. Recovery of big fixed capital (GFCF) and market demand indicators saw positive growth of 6.92% in the previous quarter to 12% in the third quarter of the India Fiscal, Industrial Production (IIP) (2018-19). In 2018-2019, the Gross Domestic Product (GDP) speeds in the sub-Indies decreased from 4 percent sluggish inputs, agricultural growth decreased, joblessness increased in urban areas and rural areas, the contribution by the labor force decreased, while savings decreased from 30,5% in 2017-2018 to 28% in 2018-19. Several written reports on the India - 2013&20, Aayog's NITI, Indian government, Indian Reserve Bank - Statistical Handbook, the World Bank, IMF analysis and opinion published in leading news articles as well as in news media, have been used for study. The study is available in the first language. The report focuses in 2014-2015 and 2018-19 on inflation, interest rates, industrialization, growth impacts on work production, the causes of unemployment and strategies for economic recovery.

RESEARCH METHODOLOGY

This thesis report is a review of secondary data analyses. The current thesis is focused on a statistical review for a given time frame (1995-96 to 2014 - 15) of secondary GDP data (General and Sector-wide) in India. Primary details from secondary data is collected (Open Government Data Platform India). In addition, statistical methods and analyses such as correlation analysis, variance analysis and F-tests were used to draw valuable conclusions from the available secondary data.

RESULTS & DISCUSSION

Table–01: Sector- wise & Overall GDP (1995-96 to 2014 - 15)

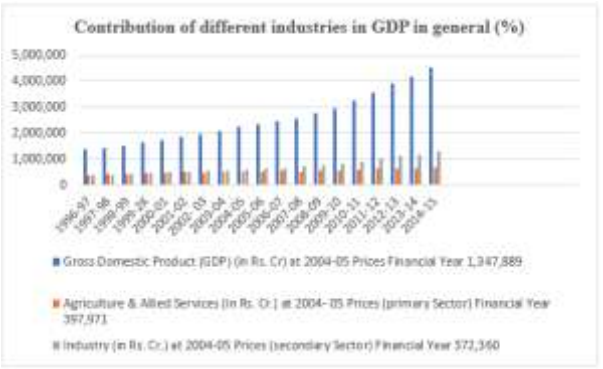
Financial Year	Gross Domestic Product (GDP) (in Rs. Cr) at 2004-05 Prices	Agriculture & Allied Services (in Rs. Cr.) at 2004- 05 Prices (primary Sector)	Industry (in Rs. Cr.) at 2004-05 Prices (secondary Sector)	Services (in Rs. Cr.) at 2004-05 Prices (tertiary Sector)
1995-96	1,347,889	397,971	372,360	573,465
1996-97	1,367,171	390,201	373,634	600,366
1997-98	1,440,504	416,153	385,647	634,549
1998-99	1,522,344	429,981	406,848	681,351
1999-2K	1,619,694	450,258	444,122	721,140
2000-01	1,737,741	447,127	494,262	794,041
2001-02	1,876,319	491,484	525,864	853,843
2002- 03	1,957,032	478,933	546,966	930,089
2003-04	2,087,828	509,203	569,656	1,007,138
2004-05	2,246,276	522,795	603,631	1,119,850
2005-06	2,342,774	522,755	640,043	1,179,976
2006-07	2,472,052	554,157	656,737	1,261,158
2007-08	2,570,690	517,559	704,095	1,349,035
2008-09	2,777,813	564,391	755,625	1,457,797
2009-10	2,971,464	565,426	829,783	1,576,255
2010-11	3,253,073	594,487	910,413	1,748,173
2011-12	3,564,364	619,190	1,021,204	1,923,970
2012-13	3,896,636	655,080	1,119,995	2,121,561
2013-14	4,158,676	655,689	1,169,736	2,333,251
2014-15	4,516,071	660,987	1,276,919	2,578,165

Figure 1: graphical representation of Sector- wise & Overall GDP (1995-96 to 2014 - 15)

Table–02: Contribution of Various Sectors in Overall GDP (1995-96 to 2014 - 15)

Financial Year	Contribution of different industries in GDP in general (%)		
	Primary sector (agriculture sector)	Secondary sector (Industrial Sector)	Tertiary sector (Service Sector)
1995-96	29.55	27.65	42.57
1996-97	28.56	27.35	43.93
1997-98	28.91	26.79	44.07
1998-99	28.26	26.75	44.78
1999-2K	27.82	27.44	44.54
2000-01	25.75	28.46	45.71
2001-02	26.21	28.05	45.53
2002- 03	24.49	27.97	47.55
2003-04	24.41	27.30	48.26
2004-05	23.29	26.89	49.87
2005-06	22.33	27.34	50.39
2006-07	22.44	26.59	51.04
2007-08	20.15	27.41	52.50
2008-09	20.35	27.22	52.50
2009-10	19.05	27.95	53.07
2010-11	18.29	27.99	53.76
2011-12	17.39	28.67	54.00
2012-13	16.83	28.76	54.47
2013-14	15.79	28.13	56.13
2014-15	14.66	28.27	57.11

Figure 2: graphical representation of Contribution of Various Sectors in Overall GDP



Table–03: Descriptive Statistics

Cols. 1		Cols. 2		Cols. 3	
Mean value	22.70648445	Mean value	27.6315549	Mean value	49.56755864
Standard Error	1.057782057	Standard Error	0.144436938	Standard Error	1.012536303
Standard Deviation	4.730545164	Standard Deviation	0.645941618	Standard Deviation	4.528199998
Sample Variance	22.37805755	Sample Variance	0.417240573	Sample Variance	20.50459524
Standard Deviation	4.730545164	Standard Deviation	0.645941618	Standard Deviation	4.528199998
Count	20	Count	20	Count	20

Table–04: Correlation Matrix

	Cols. 1	*Cols. 2*	*Cols. 3*
Cols. 1	1		
Cols. 2	-0.53459	1	
Cols. 3	-0.99188	0.423308	1

This matrix revealed a correspondence of -0.53459, i.e. r12= -0.53459 between Column 1 (Agricultural Structure) and Column 3 -0,53459, i.e., r23 = +0.423308 and between Column 1 and Column 3 -0.99188, i.e. r13, - 0.9918, i.e., r13 = -0.9918 Column 2 (Service Sector) Here, the amount R13=- 0.99188 means that the GDP contribution from the agriculture sector and the service industry has a very good negative association (i.e. almost completely negative correlation). Again, r12= - 0.53459 means that the GDP inputs of the Agriculture Sector and Industrial Sector are mildly negative. In addition, r23 = + 0.423308 suggests that a favorable yet poor association between industrial and service sector GDP contributions is formed.

Today, we use the Variance Analysis (ANOVA) and F-test technics to test equivalent communities (i.e. equal total GDP output from the three industries from 1995-96 to 2014-15.

In this scenario there are none and alternate hypotheses —

Nil expectation, “Ho: μ1=μ2=μ3 i.e. The cumulative contributions of the three industries for

the entire GDP over the period 1995-96 to 2014-15 are not substantially different".

Alternative Hypothesis, "H1: μ1≠μ2≠μ3 i.e. The mean contributions of the three industries for the total GDP from 1995-96 to 2014-15 vary dramatically".

Table–05: Analysis of Variance (ANOVA)

ANOVA: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Cols. 1	20	454.1296885	22.70648443	22.37805753		
Cols. 2	20	552.631094	27.6315547	0.417240571		
Cols. 3	20	991.3511726	49.56755862	20.50459522		
ANOVA						
Source of Variation	SS	df	MS	F calculated	P-value	F critical
Between Groups	8179.746	2	4089.872974	283.3637217	2.42706E-30	3.158842719
Within Groups	822.698	57	14.43329777			
Total	9002.444	59				

The F-static is now estimated to be 283,3637217 from the above ANOVA table (Table-04). F = 283.3637217 estimated

Once again, the essential or tabulated value of F is 3 1588 at 5 percent of importance, for 2 and 57 df. F = 3.1588 tabulated.

Currently, as the average contribution from the 3 industries to the total GDP is quite different in 1990-91 to 2009-2010, we have dismissed the null hypothesis since F estimated > F tabulated.

CONCLUSION

The current research aims to examine and evaluate the role of the Indian economy in the country's total GDP between 1995-96 and 2014-15, by the three main sectors (i.e. agriculture, industry sector, service sector). The GDP details concerned have been collected from the website and provided on the same basis in Tables-01 & 02. Table-02 demonstrates specifically that the agricultural sector added 29,53 per cent to GDP as a whole in 1990-91 and decreased to 14,64 per cent by the end of 2009-10. In the opposite, the Service Sector's contribution to total GDP may not improve substantially in 1990-91, which was 42.55 percent and achieved a percentage of 4 results by the end of 2014-15. In comparison, from 1995-96 to 2014-15, the Industrial Sector's GDP output stayed almost stable - i.e. 27.63% in 1995-96 and 28.27% in 2014-15.

Also, the above argument is endorsed in the findings from ANOVA and F-test (Table-05). These findings indicate that the total contributions from three sectors (i.e. agriculture, industry and servicing) to total GDP for the duration 1995-96 to 2014-15 are significantly different. Again, with respect to association findings (Table-04), The r13 = - 0.99188 suggests that the agricultural and service sector GDP inputs lead to a very broad negative relation. R12 = - 0.53459 implies that the GDP contributions of the agricultural sector relate steadily and slowly.

Finally, we may conclude that in all three sectors the output of GDP contribution differs substantially between 1995-96 and 2014-15. As the provider sector is growing in the overall GDP of the country, we are a developed country that struggles to expand. There is ample Service Sector share for their respective GDPs in any developing economy in the world, so it is safe that this is also valid for our economy. We are seeing great gaps between business GDP and sector-by-sector job statistics as the biggest issue in our economy. In 2014-15, for example, Agricultural sector GDP contribution was 14.64% but almost 51% of all workforce working in that sector; Industrial Sector's The contribution to GDP contributed to 28.27 percent, while approximately 22 percent of the overall population being using and the contribution to GDP of the service sector was 57.09 percent.

REFERENCES

1. Agarwal, A.N. (2011). Indian Economy. New Age International Publishers, New Delhi.

2. Bajpai, N. (2010). Business Statistics. Dorling Kindersley (India) Pvt. Ltd., New Delhi (Licensees of Pearson Education in South Asia).

3. Bandral, N. (2014). Service Sector in India's Economic Growth. International Journal of Research, 1 (5), pp. 972-981.

4. Chawla, D. and Sondhi, N. (2011). Research Methodology. Vikas publishing House Pvt. Ltd., New Delhi.

5. Garg, I. and Walia, S. (2013). An Analysis of Service Sector in Indian Economy. International Journal of Research and Social sciences. 3 (3), pp. 8-18.

6. GDP of India and major Sectors of Economy, share of each sector to GDP and Growth rate of GDP and other sectors of economy 1951-52 onwards based on CSO Source. Retrieved from https://data.gov.in

7. Jhingan, M.L. (2010). Macro-Economic Theory. Vrinda Publications (P) Ltd., New Delhi. Keshava, S.R. (2010). Economics.

New Age International Publishers, New Delhi.

8. Krishnaswamy, K.N., Sivakumar, A.I. and Mathirajan, M. (2006). Management Research Methodology. Dorling Kindersley (India) Pvt. Ltd., New Delhi (Licensees of Pearson Education in South Asia).

9. Lashmi, P. and Kumar, S. (2012). Economic Growth and Impact of Service Sector in India. International Journal of Business, Management and Economics, 3 (5), pp. 627-632.

10. Levine, D.M., Stephan, D.F. and Szabat, K.A. (2014). Statistics for Managers. PHI Learning Private Limited, Delhi.

11. Lipsey, R. and Chrystal, A. (2011). Economics. Oxford University Press, Oxford, U.K.

12. Malhotra, N. and Dash, S. (2011). Marketing Research: An Applied Orientation. Dorling Kindersley (India) Pvt. Ltd., New Delhi (Licensees of Pearson Education in South Asia).

13. Misra, S.K. and Puri, V.K. (2011). Indian Economy. Himalaya Publishing House, New Delhi.

14. Aravind Veeramani ,(2019). Policy Reforms f or Reversing Slowdown and Accelerating GDP Growth in the Foundation for Economic Growth and Welfare, Working Paper No1/2019.

15. Papola. T.S. (2013).Economic Growth And Employment Linkages The Indian Experience in Institute for Studies in Industrial Development, ISID working paper 2013/01.

16. Paneerselvami, R. (2004). Research Methodology. PHI Learning Private Limited, Delhi.

17. Samuelson, P.A. and Nordhaus, W.D. (2005). Economics. Tata McGraw-Hill Publishing Company Ltd., New Delhi

18. Sharma, J.K. (2007). Business Statistics. Dorling Kindersley (India) Pvt. Ltd., New Delhi (Licensees of Pearson Education in South Asia).

19. Tiwari, S. (2011). Service Sector in India: Performance and Reforms. International Journal of Multidisciplinary Research, 1 (7), pp. 155-162

Corresponding Author

Ujjawal Kher*

ujjawalkherr@gmail.com