

A Time Series Analysis of Gross Domestic Product and Gross Domestic Capital Formation: The Post Reform Analysis in India

Dr. Rajiv Lochan Jena

Maharaja Shri Ram Chandra Bhanja Deo University

Abstract: *This study delves into the dynamics of Gross Domestic Product (GDP) and Gross Domestic Capital Formation (GDCF) in India from 1991 to 2017, spotlighting the pivotal role of capital formation in economic growth, particularly post - economic reforms initiated in 1991 in India. The research meticulously analyzes the patterns and impacts of gross domestic capital formation on India's economic development and highlighting significant transformations in GDP and GDCF. Through an extensive literature review and empirical analysis across six zones of Indian states, the study establishes a robust relationship between capital formation and economic expansion. The findings underscore the importance of enhancing domestic investment policies, minimizing import tariffs on capital goods, and boosting investment in export promotion industries to stimulate GDP growth. The research contributes to a deeper understanding of the economic growth mechanism in India, offering valuable insights for policymakers aiming to foster sustainable economic development.*

Keywords: Economic growth, Gross Domestic Product (GDP), Gross Domestic Capital Formation (GDCF), Trend analysis, Investment policies.

1. Introduction

Economic growth for itself is significant for both rich and poor countries. While maintaining growth is a matter of concern for rich countries, accelerating the pace of growth is in fact more pressing for the poor countries to take care of abject poverty, large scale unemployment, and glaring disparity among people and across regions. Capital plays a crucial role and it is considered the most important factor for rapid economic growth. Therefore, a crucial factor in boosting economic development is the rise in domestic capital creation.

As a result of economic changes introduced in 1991, both Gross Domestic Product (GDP) and Gross Domestic Capital Formation (GDCF) have undergone significant transformations. Following the implementation of reforms, economic policies were liberalized to boost investment and speed up economic expansion. Foreign investors were given more leeway to join the Indian market, and increased emphasis was placed on opening up access to finance, technology, and the market in an effort to boost industrial efficiency and further connect India to the global economy. The present study focuses on the trends of GDP and GDCF in India and Zone wise from 1991 to 2017.

2. Research Objective

The general objective of this study is to investigate the growth of GDP and GDCF in India as well as six zone of Indian states.

3. Literature Review

The literature review is a very essential part of any research work. It gives the theoretical and empirical clarity to the present topic. In this chapter, an attempt has been made to review some of the previous works that are related to the

present research work directly or indirectly. The purpose of the review is essentially to identify the areas of concern and the gap in the research work that can be pursued further. Moreover it is necessary for the conceptual clarity and theoretical applicability to the present research work.

Gregory C. Chow (1990) has made a study on 'Capital Formation and Economic growth in China'. He applies time series data from 1952 to 1985 and considered the five producing sectors of the economy. For the estimation of results, he applies different types of graph and simple regression analysis for his research work. He concludes that the technological progress was absent in the study period, the economic growth was a function of capital formation. That means increase in rate of capital formation leads to rapid rise in output of these five sectors in China.

Godwin Akpokodje (2000) in his research work on the topic of 'effect of export earnings fluctuations on capital formation in Nigeria'. he used time series data from 1960 to 1995 for the aggregate model and from 1973 to 1995 for the disaggregate models. He concludes that the current export earnings adversely affect investment in the short run.

Radhe Shyam Pradhan and Maheswar Prasad Yadav (2002) made a study on saving, Investment, capital formation and economic development in Nepal. They use time series data for the period from 1974 - 75 to 2000 - 01. The estimated regression equations suggest that current and lagged values of saving, investment and capital formation have affirmative impact on economic development but the current value has vital role.

Nikolaos Dritsakis, Erotokritos Varelas and Antonios Adamopoulos (2004), they write a paper to examined the causal relationship among export, gross capital formation, foreign direct investment and economic growth in Greece. The results of the analysis express that there was long run

Volume 13 Issue 2, February 2024

Fully Refereed | Open Access | Double Blind Peer Reviewed Journal

www.ijsr.net

association ship among the variables and the causality results shows the unidirectional causality run from export to gross fixed capital formation and foreign direct investment to economic growth in Greece.

Himanshu Joshi (2007) studied on the role of ‘Domestic Savings and Foreign Capital Flows in Capital Formation in India’. He found that saving has long run steady state relationship between capital formations. In facts the capital accounts engage in recreation of significant role in mechanism the steady state growth through the process of capital formation cycle. Therefore, saving and investment incorporate the long-term capital formation in India.

Sanjib Bordoloi (2008) made an empirical analysis on saving and capital formation in India. He used National Account Statistic’s data from 1950 - 51 to 2005 - 06. He uses econometric tools for analysis. The results of two macroeconomic variables suggested that the domestic capital formation and domestic saving have positive relationship, means domestic savings finance for domestic capital formation in India.

Bakare (2011) made a study on capital formation and economic growth in Nigeria. He used Harrod - Domar growth model for his analysis. He concludes that the national income or economic growth is directly related to the saving ratio and capital formation in Nigeria in the study period. This empirical result suggests to the govt. that they should increase saving and capital formation which promotes economic growth in the country.

Orji and Mba (2012) made a study on foreign private investment, capital formation and economic growth in Nigeria. He applies econometric tools such as ordinary least square method, unit root test, co integration test, and two stage least square (2SLS) method of estimation. He found that the short run impact on foreign private investment and capital formation is lesser than long run impact in Nigeria.

4. Data and Methodology

This section describes the procedures used to collect and analyze data. From the Handbook of Statistics on the Indian Economy published by the Reserve Bank of India and the

Economic Survey 2018 - 19, Government of India, we have compiled time series data covering the 27 - year span from 1990–1991. Here for trends analysis, we use exponential growth model, annual growth model, compound annual growth rate and the regression analysis of curve fitting.

5. The specification of model

The Exponential Growth Model is fit to our data for trend analysis of aggregate value of GDP and GDCF in India. Apply exponential regression model for trend analysis because the R square value is highest compare to the all-other regression models.

Model for GDP and GDCF Trends

$$Y = \alpha e^{\beta x} \dots\dots\dots (1)$$

Where, Y represents GDP or GDCF as dependent variable X represents time (year) as independent variable. Taking log on both side of the equation –

$$\ln y = \ln \alpha + \beta x \dots\dots\dots (2)$$

Our Exponential Growth Model is

$$y' = \alpha' + \beta x + u_t \dots\dots\dots (3)$$

Where u_t is error term

6. Growth of GDP and GDCF in India

It is crucial to know the amount of GDP and GDCF in each year and its yearly growth rate throughout the study period in order to have a clear knowledge of the development pattern of the Indian economy following the reforms in 1991. According to table - 4.1, India's GDP has grown from Rs 13478.89 billion in 1990–91 to Rs 49185.33 billion in 2010–11 and Rs 72804.57 billion in 2016–17, and it is observed that India's GDP grows each year of the research. Similarly Gross Domestic Capital Formation (GDCF) of India at constant price have been increasing from Rs 3794.36 billion in 1991 to Rs 4372.24 billion in 1995 to Rs 6669.08 in 2000 to Rs 10640.41 billion in 2005 to Rs 18412.63 billion in 2010 to Rs 23479.85 billion in 2015 and finally to Rs 26206.76 billion in 2017. From the above it is observed that the actual value of GDCF growing in cyclical manner throughout the study period in India.

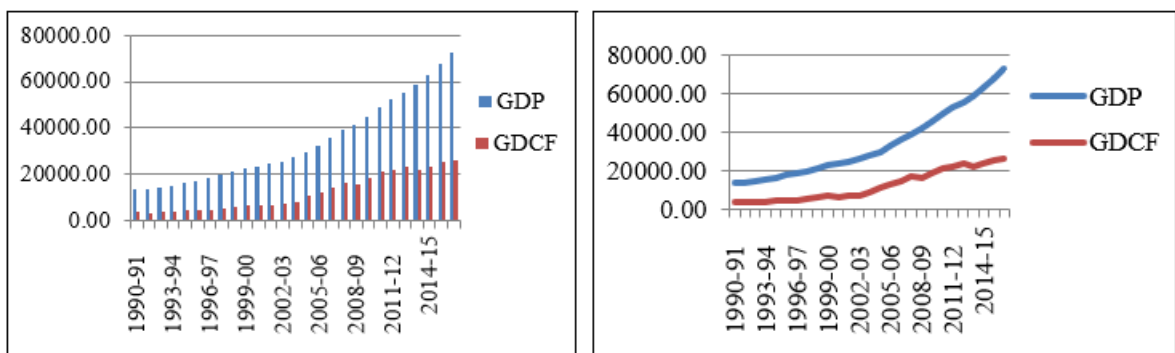


Figure 1: Bar and line Graph of GDP and GDCF in India

Figure - 1 shows the bar and lines graph of both GDP and GDCF respectively. GDP line is above the GDCF line. Growth in both GDCF and GDP may be seen. The result of this capital creation is a greater GDP. After 1991 policy in

India Liberalisation, Privatisation and Globalisation have proved to be beneficial to India’s growth of GDP and GDCF. Before 1991 capital formation and GDP growth was slow in India. Capital creation is essential to achieving the

desired pace of economic development (investment). The increasing trend lines of GDP and GDCF illustrates this point. The Gross Domestic Product and the GDCF are highly associated. The figure - 4.2 represents the lines of GDP and GDCF in India since 1991 to 2017 and it is seen that both are increasing during the study period.

7. Annual Growth Rate (AGR) of GDP and GDCF

The Annual Growth Rate (AGR) of GDP and GDCF of India shown in table - 4.1. The annual growth rate of GDCF

was - 16.5 % in 1992 than it increased to 12.9 % in 1993 than 19.5 % in 1995, and then declined to 0.9 % in 1997 then increased to 17.6 % in 2000 and again it falls to - 5.5 % in 2001 than it increased 29.8 % in 2005. After that AGR of GDCF continuously declined and reached to - 5.2 % in 2014 and then increased to 4.1 % in 2017. However, the AGR of GDP increased from 1.4% in 1992 to 7.3% in 1996, 3.9% in 2003, 9.6% in 2007, and then 7.1% in 2017. The annual growth rates of GDP and GDCF both show cyclical behaviour, although the AGR of GDCF is more unstable over the research period.

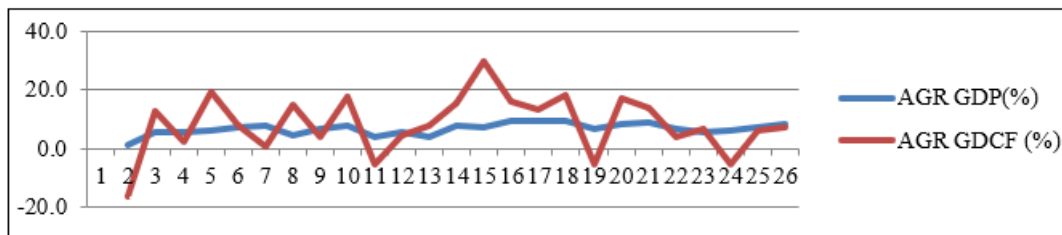


Figure 2: AGR of GDP and GDCF

Similarly, Figure - 2 shows the Annual growth rate of both GDP and GDCF. Here we found AGR of GDP comparatively consistent growth than GDCF throughout the study period. The AGR of GDCF becomes negative in 1992, 2001, 2009 and 2014. In that situation the AGR of GDP fluctuate in some extent. Therefore, GDP and GDCF in India are tied to each other. The greatest annual growth rate

of GDP was 9.6% in 2007, whereas the highest annual growth rate of GDCF was 29.8% in 2005.

8. Trend Analysis of GDP and GDCF in India

Results of the Exponential Growth of model is given below

Table 1: Result of the Exponential Growth of GDP and GDCF in India

Name of the component	Growth Rate	Constant	R ² (R square) value	t - Statistic	Significance
GDP	0.067	9.27	99.6%	74.77	000
GDCF	0.089	1.33	97.3%	29.98	000

The result of trends analyses are shown in table - 1. It is conclude that both GDP and GDCF have increasing trends during the study period in India. In other wards the growth of GDP is 6.7 percent where as the growth of GDCF is 8.9 per cent during the study period in India. The R square value is 99.6 percent and 97.3 per cent in GDP and GDCF respectively. On the other hand, the model coefficients are statistically significant at 1 per cent level.

- Central Zone: - Madhya Pradesh, Uttar Pradesh
- East Zone: - Bihar, West Bengal, Odisha
- West Zone: - Gujarat, Maharashtra, Goa
- South Zone: - Andhra Pradesh, Karnataka, Kerala, Tamil Nadu.
- North East Zone: - Assam, Manipur, Meghalaya, Nagaland.

For the analyses the average value of each zone's Gross State Domestic Product (GSDP) and GDCF have to be taken and the value is expressed in billion figures in current price.

9. Trend Analysis of Zone Wise Gross Domestic Product (GDP) and Gross Domestic Capital Formation (GDCF) in Indian States

The trends analyses of zone wise GDP and GDCF in Indian states. We have selected 20 states for our analysis because of availability of data on both GDP and GDCF in state level. Based on their locations on a map of India, the twenty individual states that make up the country of India are divided into six distinct groups. The six zones are as follows: North, East, Central, West, South, and North East. I have sampled a total of 20 states for this study. The name of states which are included in each zone that are given below:
 North Zone: - Himachal Pradesh, Punjab, Haryana, Rajasthan

9.1. Zone Wise Trend Analysis of Gross Domestic Product (GDP) in India

The GDP of six zones in India that includes 20 states. The names of the six zones are north zone, central zone, East zone, West zone, and South zone and North East zone in India. The North Zone GDP is continuously increases up to 2017. It was Rs 156.54384 billion in 1991, then increases to Rs 561.80962 billion in 2000 and Rs 4492.7782 billion in 2017. The Central Zone saw a similar pattern of economic development, with GDP rising from Rs 473.9089 billion in 1991 to Rs 1008.862 billion in 1997, Rs 2722.525 billion in 2008, and Rs 9048.029 billion in 2017. In the same way East Zone GDP increases from Rs 277.6232 billion in 1991 Rs 5572.756 billion in 2017. In case of West zone GDP it was Rs 340.9613 billion in 1991 to Rs 10857.3 billion in 2017.

The GDP of South Zone was Rs 255.161 billion in 1991 to increase to Rs 1387.731 billion in 2004 and then Rs 7985.887 billion in 2017. The North East Zone GDP was increased from Rs39.5934 billion in 1991 to Rs 724.2623 billion in 2017. it concludes that the Zone wise GDP of all

zones are rising in nature during the study period or in other wards the zone wise GDP show rising trends in India.

Note: NZ - North Zone, CZ - Central Zone, SZ - South Zone, EZ - East Zone, NEZ - North East Zone, WZ - West Zone

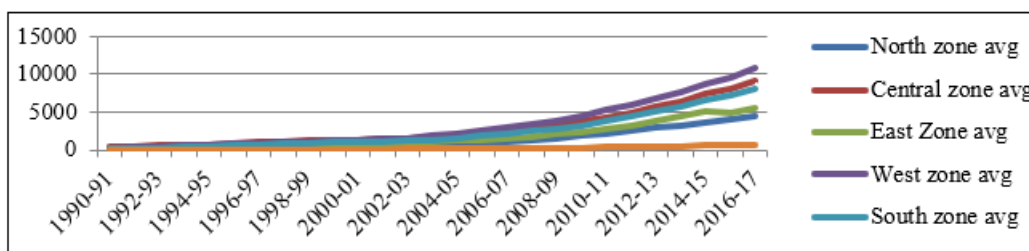


Figure - 3: The Zone wise line graph of GDP in India

Figure - 3 represents the line graph of zone wise GDP of all zones which reflects upward trends. All the curves move smoothly upward except east zone which is decline in 2013 and then rising in 2015. The line of north east zone is minimum compare to all other zones which is lies below the all other lines.

9.1.1. Zone Wise Model results of Trends Analysis of GDP in India

The Zone Wise trends can be calculated with the help of simple linear regression model. The exponential growth model is best fit to current data for trend analysis which is given below.

Results of the model is given below

Table - 2: Zone Wise Results of the Exponential trends analysis.

Name of the Zone	Growth Rate	Constant	R ² value	t - Statistic	Significance
North Zone	0.126	1.126	99.4	63.48	000
Central Zone	0.111	5.485	99	50.19	000
West Zone	0.129	1.81	99.4	62.14	000
East Zone	0.118	2.128	99.4	62.3	000
South Zone	0.127	2.00	99.4	62.25	000
North East Zone	0.109	9.974	99.6	83.32	000

Source: Researcher’s own calculation based on Zone wise GDCF and GDP data from 1991 - 2017

The table - 2 represents the results of Zone wise GDP trends analyses in India. In North Zone the positive coefficient represents the upward trend and the slope of the trend line is 0.126. It means the GDP of north zone increases at 12.6 percent in India during the study period. The best model fit is conveyed by a t - statistic of 63.48, which is 99.4 percent, and is statistically significant at the 1% level.

In Central Zone GDP coefficient represents 0.111. That means central zone GDP growing at 11.1 percent during the study period. The model analysis with the greatest R square value is 99.0%, while the F - statistic value is 2518.7%. In West Zone GDP trend analysis results shows the value of constant is 1.1813 and the value of coefficient is 0.129. The positive value of the coefficient shows the upward movement the West zone GDP trend and growing 12.9 per cent during the study period. The R square value of the model is 99.4 percent and the F value is 3860.8.

Similarly in East Zone GDP coefficient value is 0.118. That means East zone GDP growing at 11.8 percent throughout the study period. . The South Zone GDP trend analysis results indicates increasing trend. The coefficient of the model is 0.127 which represents the South Zone GDP increasing at 12.7 per cent in the study period in India. Since the P value is almost zero, the R2 value is 99.4 percent, and the F value is 3874, the t value of 62.245 is statistically significant. And in North East Zone represents increasing

trend. This indicates that the North East Zone's GDP grew by just 10.9% throughout the research period, which is much lower than the growth rates of any other zone. Finally it is concludes that trends of all zones GDP have positive coefficient which indicates increasing trends of all zone GDP in India during the study period. The above all figures represent the expected and observed value of Zone wise GDP with respect to time. Here all the observed values are very close to the line that means the model is best fit and R square value also very high.

9.2 Trends Analysis of Zone Wise GDCF in India

Explain the zone wise trends of gross domestic capital formation in India over the period of 1991 to 2017. In North Zone the GDCF was Rs 8.818 billion in 1991 it increases to Rs 12.6483 billion in 1993 then it decline to Rs - 37.12565 billion in1994 then increases to Rs 22.53197 billion in 2000 then it reaches its maximum Rs 152.9592 billion in 2013 then decline to Rs 72.0382 billion in 2016 and Rs 112.19117 billion in 2017. The trend of north zone GDCF is cyclical manner. Similarly in Central Zone the GDCF grow from Rs 24.4098 billion in 1991 to Rs 129.4965 billion in 1998 then decline to Rs 25.9088 billion in 2002 and increases to the maximum of Rs 229.0787 billion in 2013. On the other hand East Zone GDCF starts growing from Rs 15.47 billion in 1991 to Rs 172.76 billion in 2013 and then decline to Rs.105.05 billion in 2017.

Similarly in West Zone GDCF start rising from Rs 33.2255 billion in 1991 to Rs 117.81 billion in 1996 then declined to Rs 74.8138 billion in 1999 then increased to Rs 130 billion in 2002 and to Rs 550.5736 billion in 2017. The South Zone GDCF increased from Rs 21.8177 billion in 1991 to 304.8935 billion in 2011 and Rs 283.9421 billion in 2017. In North East Zone in India the GDCF growth was very low that starts from 0.75 billion in 1991 to Rs 26.6974 billion in 2016. The zone wise GDCF growth of entire zone in India

fluctuates over the period. In other wards we say that the growth path of zone wise GDCF is cyclical manner.

9.2.1 Zone Wise Model Results of Trend analysis of GDCF in India

The trend analysis of Zone Wise GDCF can be done through the simple exponential regression model which is best fit for the data. The model is given below:

Results of the model is given below

Table 3: Results of Trend analysis of GDCF in all zones

Name of the Zone	Growth Rate	R ² (R square) value	t - Statistic	Significance
North Zone	0.125	65.8	6.93	000
Central Zone	0.064	54.6	5.48	000
West Zone	0.107	88.9	14.17	000
East Zone	0.087	39.0	3.99	001
South Zone	0.101	83.1	11.08	000
North East Zone	0.116	83.1	9.32	000

Source - Researcher’s own calculation based on Zone wise GDCF and GDP data from 1991 - 2017

The result of the Zone wise trends analyses expressed in table - 3 which indicates that all zone trend coefficients are positive means that all zone have increasing trend in India during the study period. In North Zone GDCF trend slope of the model is 0.125 which reflect the growth of North Zone GDCF is 12.5 per cent over the period. The t value is 6.93 and p value is 000 which represents the significant of the model result. The Central Zone GDCF increased by 6.4% throughout the time frame. The west zone GDCF of shows the increasing trend with coefficient value 0.107 means West Zone GDCF increasing at 10.7 per cent over the periods. The model is significant with t value 14.165 and p value is almost zero with 1 % level of significant.

The result of East Zone GDCF expresses that there is upward trend of GDCF of east zone in India since 1991 to 2017. The positive value of the coefficient is 0.087 which represent the increasing trend in India. The model is significant at t = 11.08 with p = 000, and the upward trend in South Zone GDCF has a positive coefficient of 0.101, indicating that South Zone GDCF is growing by 10.1% throughout the research period. In North East Zone in India shows the increasing trend since 1991 to 2017 which reflect the positive coefficient 0.116 of the model result. The R square value is 83.1 percent represents the observed values are nearer to the line of expected value the shown in below figure.

10. Comparison of Trends of GDP and GDCF

Table 4: Trend coefficients GDP and GDCF in India and all Zones

Name of the trend equation	Trend equation for GDP	Trend equation for GDCF
India level	GDP = 9.27 + 0.067x	GDCF = 1.33+ 0.089x
North Zone states	GDP = 1.126 + 0.126x	GDCF=8.064+0.125x
East Zone states	GDP =2.128 + 0.118x	GDCF= 5.17+0.087x
Central Zone states	GDP = 5.485 + 0.111x	GDCF =1.602 + 0.064x
West Zone states	GDP =1.813 + 0.129x	GDCF =1.276+ 0.107x
South Zone states	GDP =2.004 + 0.127x	GDCF =1.331+ 0.101x
North East Zone states	GDP =9.974 + 0.109x	GDCF =8.553+ 0.116x

Source: Researcher’s own calculation based on GDCF and GDP data 1991 - 2017.

The above table - 4 shows the GDP and GDCF trend equation of both in India and six zones of Indian states. All the trend equations having positive slope which suggest the increasing trends in all case that shown in table - 4.9. After the new economic policy in 1991, GDCF increases at 14.2 per cent and GDP increases at the rate of 12.6 per cent in India during the period of study.

analysis shows that all trend equations represent positive co efficient that means all the trends are increasing trends over the periods. The trends coefficients of all the zones are given as 12.6 percent in North zone, 11.8 percent in East zone, 11.1 percent in central zone, 12.9 percent in West zone, 12.7 percent in South zone and 10.9 percent in North East zone in India from 1991 to 2017.

Based on the availability of data in state GDP and state GDCF, the twenty Indian states are divided into six zones for the zone - wise trends study of gross domestic product (GDP) and gross state domestic capital formation (GSDCF). There are six distinct regions, i. e., North, East, Central, West, South, and North East. Average GSDP and GSDCF data have been used in a curve estimate regression model to predict future trends. The results of Zone wise GDP trends

Similarly, the results of Zone wise GDCF trend equations shows the positive coefficients which represents increasing trends of zone wise GDCF in all zones in India. The positive coefficient values are 0.125 in North zone, 0.87 in East zone, 0.06 in Central zone, 0.107 in West zone, 0.101 in South zone and 0.116 in North East zone in India.

11. Suggestions

Based on the key findings and discussions, the following suggestions are recommended.

- Since the Gross Domestic Capital Formation has positive and significant impact on GDP, the level of GDCF has to be increased by increasing the level of investment. The existing policy for domestic investment such as Make in India, Start - up India, Atmanirbhar Bharat, Production - Linked - Incentive (PLI) are to be strengthened and effectively implemented. The Govt. should make more such investment policies in rural as well as urban areas to boost investment that leads to domestic capital formation and economic growth in India.
- The tariff on imports of capital goods and modern technology that increases GDCF needs to be minimized.
- Since GDCF has positive impact on exports, investment in export promotion industries has to be increased which will enhance GDP.

12. Conclusion

The present research is based on secondary data from 1991 to 2017, in which the relationship between GDP and GDCF have been analyzed. From the analyses it found that both the GDP and GDCF have increasing trends across the zones and in the country. The research concludes that both GDP and GDCF show rising tendencies during the study period of analysis. However, GDCF's trend coefficient 14.2 percent higher than GDP coefficient of 12.6 percent growth in India's GDP throughout the research period. However, throughout the research period, GDP and GDCF rose in all regions. However, throughout the research period, the growth rate of GDP was higher than that of GDCF in the North Zone, Central Zone, West Zone, and South Zone, whereas the opposite was true in the East Zone and the North East Zone.

References

- [1] Abramowitz M. (1955) Introduction to Capital Formation and Economic Growth, In N. B. Research, *Capital Formation, and Economic Growth*, pp.1 - 16, USA: Princeton University Press.
- [2] Abraham, William Israel and Gill, Mahinder Singh (1969) 'The Growth and Composition of Malaysia's Capital Stock', *Malayan Economic Review*, Volume 14, Issue 2, PP 44 - 54.
- [3] Barro, R. J., & Sala - I - Martin, X. (1995). Capital mobility in neoclassical models of growth. *American Economic Review*, Volume 85, PP 103 - 115.
- [4] Chow Gregory C. (1993) Capital Formation and Economic Growth in China. *The quarterly Journal of Economics*, Oxford University Press, Volume 108, No.3, PP 809 - 842.
- [5] Eng Pierre van der (2008) capital formation and capital stock in Indonesia, 1950 - 2007. The Australian National University, working papers in Trade and Development, paper No.24.
- [6] Everhart, Stephen S. and Sumlinski, Mariusz A. (2003), 'Trends in Private Investment in Developing

- Countries: Statistics for 1970 - 2000', International Finance Corporation, PP 1 - 15.
- [7] Fedderesen Maura, Nel Hugo and Botha Ferdi (2017) Exports, capital formation and economic growth in South Africa. *African Review of Economics and finance*, Vol 9, Issue1, PP213 - 244.
- [8] Ghali, K. H. & Al - Mutawa A. (1999) the intertemporal causal dynamics between fixed capital formation and economic growth in the group of seven countries, *International Economic Journal*, Volume 13 (2), PP 31 - 37.
- [9] Hooley, Richard W. (1964) 'A Critique of Capital Formation Estimates in Asia with Special Reference to the Philippines', *Philippine Economic Journal*, Volume 3, PP 114 - 129.
- [10] Iftikhar Sana, Ali Majid, Nisa Fakhar - Un and Umar Sadia (2016) 'GDCF, Exports and Economic Growth', *Journal of Economics and Sustainable Dev.*, vol.7, No.13, PP44 - 48.
- [11] Kulshreshtha, A. C. and V. K. Malhotra (1998) 'Estimation of Capital Stock and Consumption of Fixed Capital in the Indian National Accounts', Paper presented at the OECD Second Meeting of the Canberra Group on Capital Stock Statistics, Paris, 28 September - 1 October 1998.
- [12] Lkechi Success, Kanu, Ozurumba, and Anayocbukwu Benedict (2014) 'Capital Formation and Economic Growth In Nigeria', *Global Journal Inc*, Volume 14, Issue 4.
- [13] Nagaraj R (1997) 'What Happened since1991? Assessments of India's Economic Reforms', *Economic and Political Weekly*, Volume 32, No.44/45, PP 2869 - 2879.