

Analytical study of Public Expenditure and Economic Development in India: A Global Vision

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Abstract

This paper indicates to the analytical study of public expenditure and economic development in India from year 2000 to 2019. This analysis is the interplay of public expenditure and economic development to face global challenges successfully in this modern era toward Resurgent India. We used 'Augmented Dickey fuller test', 'Granger causality test' and 'Co integration test' to find the applicable and appreciable results from this paper. Prima facie this analysis shows that there is a very logical and exponential relation between Public Expenditure and economic development. We find the positive result of shocks from total public expenditure and Gross domestic product and vice versa. This analysis is done only for economic growth of India through public expenditure by government schemes launched successfully in every district for becoming the developed country in the presence scenario. Total public expenditure (TPE) played very important role for human development to enhance the banking system, infrastructure development, defense, agriculture production, education, healthcare, MSME and research & development in entire country. This analysis is based on using fundamental Techniques of statistics and management tools for calculation through Dynamics and mathematical model. Therefore we can finally analyze that economic growth that it is very important and crucial factor for economic development of India. Government schemes are launched to implement successfully based on the boost up of total public expenditure and economic development towards Resurgent India. This is the global vision to make our country first largest economy in the world.

Keywords: Public Expenditure, Gross Domestic Product, Economic development, Global vision, Augmented Dickey Fuller Test.

Introduction

Modern India, where we, the people aspire to live their life with access to modern amenities with using standard facilities and opportunities for daily livelihood. The structure of public expenditure and governance in many developing countries including India has grown up haphazardly. Effective social security and welfare measures to reduce economic disparities have not been implemented in letter and spirit leading to wide gaps between various sections of the society. The successive governments since independence have failed in implementing the welfare measures like guaranteed employment, old age pension, and such other social security measures in the way founding planners of this country envisioned. However, the government has introduced a public distribution (PDS) to ensure the supply of essential goods at reasonably fair prices. The analysis of the issue under study *prima facie* shows that public expenditure i.e. spending on agriculture, education, defense, banking system, infrastructure, and healthcare has a logical impact on development. For achieving the Resurgent India roadmap, it is imperative that the systematic and successful distribution of public funds to both urban and rural areas is ensured through multifaceted schemes (launched by successive governments) which are instrumental in kindling a strong aspiration for sustainable development.

Table 1.1: The International Monetary Fund (IMF) forecast for India.

Subject Description	Unit	2018	2019
GDP Constant prices	Percent change	7.1	7.3
Total Investment	Percentage of GDP	31.6	31.7
Gross National Savings	Percentage of GDP	29.1	29.3
Inflation ,average consumer price	Percentage change	3.5	3.9
Volume of imports of goods and services	Percentage change	9.6	9.9
Volume of export of goods and services	Percentage change	9.1	8.0
General Government revenue	Percentage of GDP	20.6	20.4
General Government total Expenditure	Percentage of GDP	27.3	27.2
General Government Net lending/borrowing	Percentage change	-6.7	-6.9
Current Account Balance	Percentage change	-2.5	-2.5

[Source of Data: International Monetary Fund (IMF), year 2019.]

According to **IMF**, “Growth of Indian economy is expected to maintain at 7.34 % (approx.) over the medium term, which is based on continuous implementation of structure formation and to make easy of infrastructural developments.” What is core action to be taken to maintain the Indian growth rate? According to the **WEO**, “Continuous implementation of structural and financial sector development with practical efforts to reduced public debt remains essential to secure the economic growth rate. In the upcoming schedule, continuous fiscal consolidation is needed to bring down India’s elevated public debt. This should be mandatory to be supported by strengthening GST rules and further reducing subsidies for economic development of India.

Review of Literature

The main purpose of the literature review work is to survey previous studies on knowledge sharing and intranets. The study starts with a rigorous process of going through a detailed literature review in the concerned area. Also analyzed the case studies, past researchers, articles, and industry reports. Further, the review of literature ends with the gap analysis and based on it draws upon the objectives of the present study.

Affordable Housing: Future of Urban Development: Hardeep S Puri (2018) , Universal Village Electrification on in 1000 Days: The Journey : AK Bhalla (2018) , Meeting the Energy Needs of the Future: Manoj Kumar Upadhyay & Abhinav Dwivedi (2018) , Public Finance in India the context of India’s development : M Govinda Rao (2017) , Present State of Goods and Service Tax (GST) Reform in India : Sacchidananda Mukherjee (2015) , Improving Public Financial Management in India; Opportunities to move forward : Pratap Ranjan Jena (2013) , John Mudaki, Warren Masaviru (2012), V.Shivaranjani (2010), Devarajan, Swaroop, Zou(1996), Anuradha De And Tanuka Endow (2008)) which find developing countries like Bolivia , Nepal has positive relation for long run growth(unidirectional) while South Korea has positive bidirectional impact. Muhlis Bağdigen & Hakan Çetintaş (2002), find developing countries like Nigeria , Malaysia, Turkey ,Kenya has no/ weakly relation between public expenditure and economic development for betterment of the society through government policies to implement the huge Public expenditure in the country for human development for happiness ,prosperity and employment generation to the vast population of the country. These studies comparing with GAP among different countries through economic status regarding importance of public expenditure and economic development in presence scenario.

Objective of Research

- To analyze the global impact of public expenditure and economic development of India in 2019.
- To Face the Global Challenges through Government schemes for human development.

Methodology and Research Design

- ❖ Hypothesis of this analysis “Public Expenditure and Economic Development of India, are independent of each other ($H_0: \beta = 0$)”.
- ❖ Annual Data of Public Expenditure and Gross Domestic Product are used in Indian rupees.
- ❖ Interconnection between Public Expenditure and Economic Development through **Granger Causality**, **ADF Test** (Augmented Dickey Fuller Test)', and **Co integration test** have applied to find out the results.

Data Interpretation and Analysis

A) Result of Unit Root Test

Through systematic process, Stationary of the variables - TPE and GDP was tested using Augmented Dickey- Fuller (ADF) test. **Table 1.2** indicates the results which is suggested to the rejection of the unit root null hypothesis of stationary for TPE and GDP at the Second difference.

Table 1.2: Result of unit root test

Total Public Expenditure	With Intercept	With intercept and time trend	For GDP	With Intercept	With intercept and time trend
ADF 1 st difference	0.360162 (3)	2.057265 (3)	ADF 1 st difference	2.626143 (3)	1.683302 (3)
P value	0.9719	0.5194	P value	0.1168	0.6997
ADF 2 nd difference	-3.46048 (3)	-5.124412 (3)	ADF 2 nd difference	-3.96994 (3)	-3.88156 (3)
P value	0.0238#	0.0359#	P value	0.0432#	0.0475#
ADF level	2.5645 (3)	-0.9035 (3)	ADF level	0.6748 (3)	-3.5274 (3)
P value	0.9997	0.9228	P value	0.9845	0.0788

Note: '#' shows the rejection of Null Hypothesis of unit root test at 5% level of significance. The Augmented Dickey Fuller Test (ADF) the lag length is specified in brackets () and based on t-test of appropriate lag length.

(Source of Data : World Economic outlook ,IMF.)

B) Result of Co integration Test

The Results of Trace Test and Maximum Eigen value tests are indicated in Table 1.3. This result is indicated to reject the null hypothesis (H_0) of no co integration at significance level of 5% .This analysis is notifying that the GDP and TPE are co integrated and there is a stationary linear relation between the variables. It denotes the Long run co-movement in between the major used variables in this study.

Table 1.3: Result of co integration test

a)Maximum Eigen value test					b) Trace Test			
Hypothesis number of CE (S)	Eigen value	Maximum Eigen Value	Critical value (5%) level	Prob.	Eigen value	Trace statistic	Critical value (5%)	Prob.
Non #	0.7266	16.8682	11.2246	0.0044	0.7266	22.0961	12.3207	0.0007
At most 1#	0.3313	5.2279	4.1297	0.0262	0.3313	5.2279	4.1297	0.0262

'#' indicates rejection of hypothesis at the level of 0.05% , and '1#' Indicates Mac Kinnon-Hang-Michele p value.

c) Result of Impulse Response Process

From the Figure 1.1 through Impulse Response Function indicates the scientific way to check the interconnection between public expenditure and economic development in

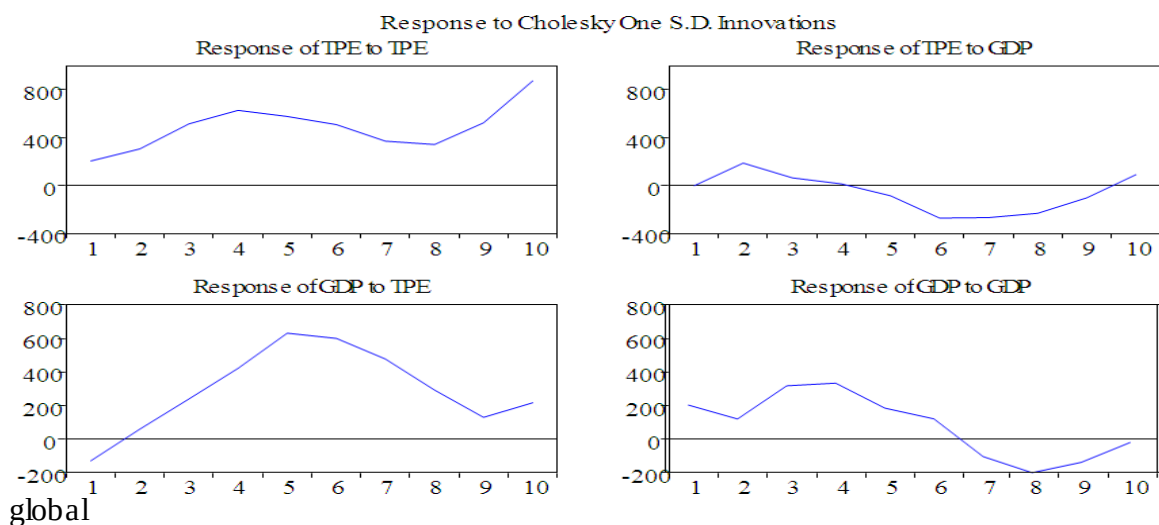


Figure 1.1: Impulse response graph.

Scenario to face the Global challenges successfully. **Figure (1.1)** indicate the Impulse response graph through **Row- 1**, when we applied positive shocks in TPE then total public expenditure increases slowly for short period of time itself, then fall down automatically, and at last it move upwards and GDP firstly increased for one short period of time then slowly move downward for next five periods, and after then it increases haphazardly for the long period of time. This indicates that there is a positive impact of TPE to GDP for some period of time. **Row -2**, when we applied positive shock from GDP itself and TPE ,then GDP is downward continuously, but TPE

increases linearly for some period of time and then moving downward for 4 periods of time and after then keep moving upward. As we believe that the direction of causality is moving through the TPE to GDP and then, another way but not with the unidirectional. After statistical analysis we know that, this shock have its maximum effect in 3rd quarter and it stayed permanent. This Impulse Response Function's result does not support hypothesis; which indicates a positive interconnection between GDP and TPE. Finally the interconnection between the two variables is obtained Positive response for the Indian data.

D) Granger causality test results

Through the analysis of literature review indicate the relationship between public expenditure and economic development through the Granger causality test. GDP indicates through Granger causality test by TPE, shows that it helps the measurement of GDP or equivalent while the If the coefficient of lagged by TPE statistically significant for this study. It denotes that TPE, Granger causes GDP. This test find that causality have strong relations from public expenditure to economic development statistically approved. This denotes that exponential growth in public expenditure will boost the economic development.

Table 1.4 : Granger causality test result

H0	GDP does not Granger cause GDP	Total public expenditure (TPE) does not Granger cause GDP
F-Statistic	2.4056	15.9202
Prob.	0.1518	0.0014#

Denotes the rejection of H0 (Null Hypothesis) of No causality at 5% level of significance.

(SOURCE OF DATA : world economic outlook ,IMF)

Conclusion, Findings and Suggestions

The study of this analysis tests through the stationary through these 2 variables, assumed the Co integration regression test, Impulse Response Function tests for existence and for the positive direction of causality. Finding of this paper indicates the existence of strong interconnection between public expenditure and economic development. The interconnection positively shows that the GDP responds positively to a shock in total public expenditure. We can recommend that increasing in the public expenditure will cause economic development to increase. Granger Causality Test indicates that the Impulse response function has a unidirectional strong interconnection from TPE to GDP through Granger test only. All results of this paper proved that null hypothesis of TPE and GDP independently have rejected for economy of Indian context in entire period of the paper analysis.

The economic analysis of this research paper is very significance in economic concern. Public expenditure through Government policies in the country for human development is mandatory for economic development of the country to face the global challenges successfully in the presence scenario. For economic development of the country we suggest that public expenditure boost up the entire economy of India. IRF result of this paper is better for Indian economy. Finally we suggest that Indian government must increase over all public expenditure to enhance the economic development of India to face global economic challenges successfully for human development in the present and for the future to become first largest economy in the world.

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