### PUBLIC EXPENDITURE AND ECONOMIC GROWTH IN PUNJAB- A REVIEW

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#### Abstact

Public expenditure is a branch of public finance, constituting a study of the money- spending activities of the government from the financial viewpoint. Economic activities of a country are very much influenced by Pubic expenditure. It is the expenditure incurred by the central, state or local government of a country for its administrative, social welfare as well as growth and development of the country. Growth and development aspects of public expenditure are of special significance for the developing countries where massive requirement of development expenditure cannot be left to the private entrepreneurs alone. Direct participation of the government is not only desired but it is an essential pre-requisite of the planned programmes of development in the less developed countries. Public expenditure has played an important role in physical and human capital formation over a period of time. Public expenditure can be effective in boosting economic growth.

Key Worlds : Public expenditure, growth and development

### Introduction

Public expenditure studies as to how finances, both in cash and kind, are spent or should be spent, to enable the state to perform its activities in accordance with its pre-defined goals (Kumar, 1986). Public expenditure can bring about a better allocation of economic resources as between the present and the future. In a free capitalist society, very little provision is made for the future. This is because people in such a society prefer present than future and, therefore, they do not make heavy provisions for the future. The state, on the other hand, is the custodian of the interests of future generations also and, therefore, has to see that adequate provision is made for their future. Firstly, there may be allocation of public expenditure on transport, irrigation and other projects which does not yield immediate returns but induces social and economic benefits from generation to come. Secondly, the state spends money in the conservation of economic resources which are scarce in nature and very essential for the future. Thirdly, government spends money for the encouragement of the research and invention, promotes education and training, looks after public health and sanitation and also takes the responsibility of social security measures.

Economic development refers to that process as a result of which, along with increase in real per capita income, there is reduction in inequality, poverty, illiteracy and diseases. It is of

utmost significance, especially to the less developed and developing countries, that an improvement in basic needs, should be ensured when economic progress has contributed to a greater sense of self-esteem for the country and individuals within it and when material advancement has extended the range of choice of individual (Thirwal, 2015).

The impact of government spending on economic growth has attracted economists attention over the years. Government expenditure is a significant component of economic policy, utilized by the government as an operative policy tool to promote strong and sustainable growth. It aims at stimulating economic growth through budgetary expansion that will boost private sector spending, thereby bring in growth through the multiplier effect. However, government spending is a double edge sword (Ahmad and Longanathan, 2015).

A fundamental question in growth theory that fascinates researchers and policy makers over the last century is between government spending and economic growth, which has a higher impact on the other? i.e. Wagner's law and Keynesian macroeconomic. In the 19<sup>th</sup> century Adolf Wagner (1835-1917), a German political economist, propounded, "increasing state activities", this is also known as Wagner's law or Wagner hypothesis of public expenditure. According to the Wagner Hypothesis, there is a positive relationship between economic growth and public expenditure. On the contrary, Keynesian School of Thought (1936) emphasized the role of government in the economy, especially in the period of economic depression, to supplement effective demand in the crisis or resolve the crisis emerging out of under-consumption or over production. The government has a political, social and economic responsibility of balancing the economy. Although Keynesian view on public expenditure has gained wider currency over the standpoints of classical political economists with respect to the role of the state in the economic activities, Keynes has left unanswered the question of why there is the periodical slowdown in the economy or why does business cycle occur?

The neo-classical economists advanced more or less the same proposition as classical economists on the role of government in the economic sphere. One of the major proponents of the neo-classical school of thoughts, Robert Solow argued that economic growth and public

spending were not significantly related to each other in the long run. According to him, technological change and rate of growth in population determined the performance of the economy. Romar (1986), Lucas (1988), Barro (1990) and Rebelo (1991) supported the growth model proposed by Solow. Barro (1990) upheld the view that the government expenditure should focus on productive sector, which would stimulate economic growth through expenditure on the productive sector. In short, growth in expenditure in the non-productive sector or on welfare measure would leave adverse consequences on its growth performance of any economy.

In modern times, the vital idea about the principles of public expenditure is that the government should spend more to accelerate the economic development of the country. In developing countries, governments do increasingly resort to stimulate economic growth and it has resulted in an enormous increase in public expenditure. The theory of state functions has also undergone a total change from the police state to that of the welfare state, which has led to an expansion in state activity.

Punjab economy during the last two decades (1991-92 to 2011-12) has shown dismal economic performance. The rate of economic progress of Punjab economy, in relation to the nation's average economic growth as well as with other fast growing Indian states, has remained quite slow. Two decades experience of slow growth in Punjab has relegated the state's economy from number one position to number seventh in terms of per capita income. Contrary to the expectation, the post reform economic performance of Punjab economy under the regulatory development strategy has shown development dynamism and remained a symbol of economic prosperity. The rural economy of Punjab witnessed agricultural modernization, reduction of incidence of rural

poverty and food surpluses that had provided the direly needed food security to the national economy. This remarkable economic success has been essentially attributed to the role played by the state in terms of laying down of conducive institutional and physical infrastructural arrangements (Chadha, 1986).

When the Indian government began to liberalize the economy in 1991, its recent history meant that Punjab was among the worst placed of the richer states to benefit from this change. The removal of controls on industrial licensing did not create positive incentives to invest in the state. Agriculture, which might have benefited from decontrol, remained heavily regulated, and dominated by the production of grains for the Public Distribution System (PDS).

The above analysis provides a solid ground for the necessity and the desirability of undertaking an anatomy of the causal-effect relationship between public expenditure and economic growth in Punjab.

## **REVIEW OF LITERATURE**

Singh and Sahni (1984) determined the directions and patterns of causality between national income and total as well as various components of public expenditure. Empirical results based on the data for India (1950-81) suggest that while at the disaggregate level the causal process is rather diverse, it is essentially "feedback"-type at the aggregate level. It neither confirms the Wagnerian (National Income-Public Expenditure) nor the Keynesian (Public Expenditure-National Income) view. They recommend that two variables be treated as jointly- dependent in both the public finance and macro econometric studies.

Kumar (1986) in his study on the trends of public expenditure and economic development over the thirty-years of planning in India from 1950-51 to 1979-80, revealed evidences of increasing State activities in conformity with Wagner's 'Law'. The empirical observations provided that the total government expenditure increased by 701.97 percent, whereas national income increased by only 130.33 percent at constant (1950-51) prices. At the same time, per capita government expenditure increased by 332.26 percent, whereas per capita national income increased only by 24.43 percent over the study period.

Bhat et al. (1991) examined the causal nexus between public expenditure and national income of Indian states. They employed Granger, Sims and multiple rank 'F' test, to examine the objective. The study is based on annual data and related to the period 1969-70 to 1989-90. Since the Granger test is sensitive to lag-length, an attempt has also been made

to estimate the appropriate lag length, using Akaike final prediction error criterion. The findings of the study though not consistent across the test, by and large support the Keynesian view establishing the direction of causation from public expenditure to income.

Employing a time series analyses approach as adopted by Toda and Yamamoto (1995) procedure for Granger non causality test in the context of VAR model, Medjahed and Benbouiziane (2015), examined the relationship between financial development and economic growth in Algeria with the emphasis on the transmission channels for the period 1970-2012. They used three indicators - real GDP per capita, real gross fixed capital formation and domestic credit to private sector to GDP. Their result found a non-existence of the causal relationship between financial development and economic growth in Algeria, thus financial development do not affect growth neither through capital accumulation nor productivity of capital, and thus suggested a less developed financial system in Algeria.

Cotsornitis, Harnhiron and Kwan (1996) studied the validity of Wagner's hypothesis using the Engle and Granger cointegration technique for People's Republic of China for the period of 1952-92. The results of the study supported the secular validity of Wagner's hypothesis for the case of China.

Using a 43 developing country data set stretching over 20 years, Devarajan et al. (1996) added value to literature on the level of public expenditure and growth by exploring the conditions under which a change in the composition of expenditure results in a higher, and a steady, economic growth rate. Both the physical productivity of the different components of public expenditure as well as the initial shares was considered. The results of the study showed that, contrary to expectations, the capital component of public expenditure had a negative impact on economic growth. The authors concluded that seemingly productive government expenditure components may turn unproductive if applied excessively.

Singh and Singh (2002) attributed decelerating economic growth in Punjab to the irrational pattern of investment and declining developmental expenditure. Thus, there is a dire need to accelerate developmental expenditure and reorient the government's investment planning and strategy, along with implementation of change in the organizational pattern of production.

Sajikumar (2006) examined the annual data on government consumption expenditure and gross national product (GNP) at market price in nominal and real terms of India for the period 1960- 61 to 1999-00. The test of Integration, Co-integration and Error Correction Mechanism were used to investigate the causal relationship between the two variables. The result found that the data at current price reflects unidirectional causality from GNP at market price to gross final consumption expenditure. However, the data in real terms could not confirm the test of causality. The main result of the study is that in nominal terms higher economic growth invariably is accompanied by an increase in the government final consumption expenditure.

Bose, Haque and Osborn (2007) concluded that the impact of public expenditure on economic growth is positive, based on a sample of developing countries. In their paper, they examined the growth effects of government expenditure for a panel of 30 developing countries over the 1970s and 1980s, with a particular focus on disaggregated government expenditures. Using a methodology that takes into consideration the role of government budget constraints and the possible biases arising from omitted variables, they found that government capital expenditure is positively and significantly correlated with economic growth. Further, at the disaggregated level, government investment in education and total expenditures on education

were the only outlays that had a positive impact on economic growth after a budget constraint and omitted variables had been taken into consideration.

Dependra (2007) using recent advances in econometric technique, the Toda – Yamamota, Granger causality test, attempted to consider if Wagner's law holds for Thailand. The author found no causality flowing from either direction between gross domestic product and government expenditure and concluded that there was no much evidence that Wagner's law holds for Thailand.

Sakthivel and Inder (2007) tested and investigated the short run nature and the direction of causality between national income, public expenditure and its various components in India by employing Granger Causality Test. The results showed that the public expenditure has registered a higher growth rate than the national income. Amongst

the various selected components of public expenditure, debt obligations in the form of interest payments registered a higher growth than others. A bidirectional relationship between national income and public expenditure and economic services has been confirmed by Granger Causality Test. The causality between national income and India's expenditure on social and defence services are found to be independent. Finally, relationship between GDP and interest payments is found to be unidirectional.

Litse et al., (2009) carried out an empirical study on the impact of public expenditure on economic growth in developing countries. They revealed that the relationship between public expenditure and economic growth is theoretically ambiguous. It may be positive or negative depending on the context of each country and how the expenditure is financed. They concluded that public expenditure does not appear to have the significant impact on economic growth. This outcome remains valid even when public expenditure is decomposed by sector and function. These results highlight the problem of public expenditure governance.

Verma and Arora (2010) examined the validity of Wagner's Law in India over the period 1950-51 to 2007-08. An econometric based cointegration analysis has been utilized to identify the long-run relationship between the time series variables. The results showed that the Wagner's law is supported during the intensive phase of liberalization given a significant fall in the

elasticity. Empirical evidences regarding the short-run dynamics refute the existence of any relationship between the economic growth and the size of the government expenditure.

Mohanty (2011) made an empirical study of the relationship between expenditure of the Government of Orissa and Gross State Domestic Product (GSDP) during a twenty-year time period (1990-91 to 2009-10). Using tools from time-series econometric tools like Granger's causality, Augmented Dickey-Fuller Test for Unit-Root and Error-Correction Mechanism, and the study revealed that for Orissa state, causality from GSDP to public expenditure is strong but the causality from public expenditure to GSDP is shown to be weak. He attributed the presence of weak causality to be due to the incidence of outsized revenue component in developmental expenditure of the state.

Attari and Javed (2013) empirically explored the relationship between government expenditure and economic growth in Pakistan using time series data stretching from 1980 to 2010. The study further splits government expenditure into two categories – current expenditure and development expenditure. Based on time-series econometrics tools, the results of the study revealed that both types of government expenditure have a positive impact on economic growth in the study country, both in the short run and in the long run.

Gangal and Gupta (2013) examined the causal nexus between public expenditure and economic growth in India. In this paper they analyzed the impact of public expenditure on economic growth of India from 1998-2012. They employed ADF unit root test, Co-integration Test and Granger causality test, to examine the objective. The relationship has been found positive that is GDP responds positively to a shock in total public expenditure. Granger Causality test also support the result of Impulse response function that there is a unidirectional relationship from total public expenditure to GDP and not the other way.

Srinivasan (2013) studied causal nexus between public expenditure and economic growth in India using co-integration approach and error correction model for the period 1973-2012. The co-integration test result confirmed the existence of long run equiliburm relationship between public expenditure and economic growth in India. The empirical result based on error-correction

model estimate indicates one-way causality run from economic growth to public expenditure and in long run supporting the wagner's law of public expenditure.

Shahid et al. (2013) examined the impact of government expenditure on economic growth in Pakistan during the period from 1972 to 2009. They further split government expenditure into development expenditure and current expenditure components. Using the autoregressive distributed lag (ARDL) model, the study revealed that in Pakistan, development expenditure positively affects economic growth.

Hussain (2014) studied the determinants of public expenditure in Assam. The study employed OLS regression estimation to find out the determinants. His study showed per capita revenue expenditure on social services are insignificant in determining public expenditure while as net state domestic product, per capita revenue expenditures on general services, per capita revenue expenditures on economic services, per capita capital expenditure, per capita capital expenditure on economic services, per capita total receipts, total receipts, per capital expenditure on general services, total receipts to net state domestic product and per capita net state domestic product have fared very well indicating positive influence on public expenditure.

Guandong and Muturi (2016) examined the relationship and dynamic interactions between government expenditure and economic growth in South Sudan from 2006 to 2014. However, government expenditure was further divided into various components. Using the regression model for panel data, including a random effect, to analyse the data, the findings showed that public expenditure on the social services sector was found to have a negative impact on economic growth in the study country.

Kaur (2016) analyzed the structure, composition and long-term trend in government expenditure of Rajasthan for the period 1970-71 to 2013-14. The objective of the study to find out causality between government expenditure and Net State Domestic Product of Rajasthan economy and is tested by using Stationary Test, Co-integration Test, Causality test, Diagnostic test. The study proved that government spending was the most powerful fiscal weapon in the armory of the government of Rajasthan to activate the regional economy.

Leshoro (2017) also put government spending and economic growth to an empirical test in the case of South Africa using annual data covering the period from 1976 to 2015. Government spending was further disaggregated into various components – government investment spending and government consumption spending. Using the autoregressive distributed lag (ARDL) estimation procedure, the results of the study showed that government spending has a positive impact on economic growth in the study country, irrespective of the government expenditure component under consideration – investment or

consumption expenditure. These results were found to hold irrespective of whether the estimation was in the long run or in the short run.

Lhoungu (2017) stated in the study, the examination of causality between expenditure of the government of Nagaland and GSDP would shed some light on that type of public expenditure which would be conducive to long-run growth of the state. They employed Granger's, Unit-root test, Co-integration and Error-correction to examine the objective. The study is based on annual data and related to the period 1980-81 to 2013-14. The various statistical tests shows that there is no Arch effect, there is no serial correlation and the residuals are normally distributed. The findings of the study shows that public expenditure by individual sector on economic growth give rise to information that is particularly useful for a developing state like Nagaland, where the allocation of limited public resources between the sectors is an issue of paramount importance. The study reveals that education is the key sector to which public expenditure should be directed in order to foster economic growth in the long-run. This result is in contradiction with some findings of negative or insignificant positive effects of education expenditure on growth for developing countries. Yet, in order to reduce poverty and at the same time enhance growth performance, the state government should give highest priority to additional investments in rural roads, transport and communication, power, agricultural research and education.

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