THE IMPACT OF STATE BUDGET EXPENDITURE ON LOCAL ECONOMIC GROWTH IN VIETNAM

Phạm Thanh Hung, Banking University HCMC
Hoang Thi Thanh Hang, Banking University HCMC

ABSTRACT

The paper evaluates the impact of state budget expenditure on local economic growth in Vietnam for the period from 2011 to 2018. Based on the research of Cooray and Alexiou in 2009, they evaluate the impact of state budget expenditure on local economic growth through Cobb-Douglas production function, including government capital. System GMM- SGMM model is applied to estimate the model with data obtained from 61 provinces and cities in Vietnam. The result shows that increasing state budget expenditure will enhance the local economic growth. Particularly, a 1% increase in state budget expenditure will increase local economic growth by 0.196%. Therefore, we impose some policy implications to improve the efficiency of local economic growth in Vietnam.

Keywords: State Budget Expenditure, Economic Growth, Investment Capital, Employment Rate, System Generalised Method of Moments (SGMM).

JEL Classification Code: E13, H50, H70

INTRODUCTION

The state budget is an important material condition to perform the state's tasks and is a key stage in the national financial system. In the past two decades, the world has witnessed a strong wave in reforming and improving the efficiency of state budget management in developed countries as well as developing countries (Shah, 2007). Effective state budget management is considered to bring back many potential benefits for the governments: Assuming that there exists a clear relationship between public funding allocations, government priorities, and the ability to save basic expenditures to enhance budget management efficiency (Curristine et al., 2007).

Vietnam has been integrating with the change from a centrally planned economy to a market economy. From one of the poorest countries in the world, Vietnam has become one of the most dynamic countries in the East Asia Pacific region. According to Worldbank (2020), from 2002 to 2018, Vietnam's average GDP has increased 2.7 times up to 2,700 USD in 2019, in parallel with the result that over 45 million people have been lifted out of poverty, the poverty rate has decreased rapidly from over 70% to less than 6% (USD 3.2 per day, to the purchasing power parity).

Besides the achieved results, however, Vietnam has still remained many issues needed to be considered and evaluated, especially in state budget management and public expenditures, which is reflected in some aspects such as (i) Planning the estimation of state budget expenditure allocation is still based on input factors such as poverty rate, population, number of administrative units, border areas, acreage, … but not following to the output results; (ii) the

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.

scale of expenditure management is still not centralized and spread out; (iii) the measurement and identification of indicators are not really unified, and are still heavily emotional.

This paper aims to evaluate the impact of state budget expenditure on local economic growth in Vietnam. We impose recommendations and solutions to enhance the stable budget expenditure efficiency to local economic growth in Vietnam.

To complete the above purposes, we use the SGMM method to estimate the research model. The data is obtained from 61 provinces and cities in Vietnam from 2011 to 2018. The research model is based on Cobb-Douglas production function, including government capital, according to Cooray (2009) and Alexiou (2009).

LITERATURE REVIEW

State Budget Expenditure

State budget expenditure means the distribution and use of government funds to ensure the performance of the state functions according to certain principles (Wildavsky, 1964). To Hoang et al. (2010), state budget expenditure is divided into many different components, each of which has different impacts on economic growth. However, countries often divided state budget expenditure into three main components: development investment expenditure, recurrent expenditure, and other expenditures.

Budget expenditure must be associated with an economic policy to develop the economy in the medium and long term. To enhance the growth, the expenditures at any levels of government are also required to consider. Fiscal decentralization, which transfers the power from upper-level government to lower-level government, is part of a group of solutions to reform the public sector, increasing the competitiveness of lower-level governments in the provision of public goods and services and getting out of slow economic growth (Bahl & Linn, 1992).

Local Economic Growth

According to Feriyanto et al. (2020), local economic growth reflects economic productivity through gross regional domestic product (GRDP) in a region in each country. The higher the value is, the more productive the region is, and vice versa.

Gaffar (2016) shows that GRDP is an indicator measuring the ability to produce output (added value) of a region in a given time. GRDP is the added value generated by all business units in a particular region or the total value of final goods and services that all economic business units generate in a region (Nigar & Saxena, 2013). GRDP based on the expenditures of all components of final demand includes consumption of households and private nonprofits, government consumption, total domestic fixed capital, inventory change. GRDP describes the local economic development and can also be used as a reference for evaluating and making regional development plans (Hidayat et al., 2016). Therefore, it's important to predict GRDP by using an appropriate methodology.

David Ricardo's Equilibrium Theory

This theory was developed by economist Ricardo (1951) and later supplemented by economist Barro (1989). This theory is based on a basic assumption that customers clearly understand the government's budgetary constraints. Therefore, whether the government cuts

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.

taxes or increases its spending will not affect customer spending. According to this theory, the higher the government expenditure of the country is, the lower its economic growth is. To the extent that the public sector takes part in activities that can be undertaken by the private sector and how expenditures are financed may cause adverse consequences.

Keynesian Theory and Neoclassical Theory

Keynesian theory (1936) suggests that government expenditures have an indeed impact on the economy, namely that when the government increases its spending through a budget deficit (borrowing or reducing taxes), it will increase income after tax and wealth of households. It makes household spending increase and thus increases the aggregate demand for goods and services. An increase in aggregate demand while prices and wages are rigid will increase income and full employment. However, Keynesian theory only applies to the economy in the short term, the economy in the long term will follow the rules of Neoclassical theory.

According to the Neoclassical theory, the fiscal expansion policy by reducing taxes or increasing spending can lead to a decrease in national saving. The Neoclassical theory supports the view that the fiscal policy expands during the economic recession and vice versa to adjust fluctuations in the short term and increase the steady-state growth in the long term, otherwise the economy will stop at the lower growth circle.

Wagner's Law

Wagner (1835-1917) is the first person who recognized the positive relationship between government expenditures and economic growth, known in the literature as Wagner's Law (1883). He recognized the positive relationship between government spending and economic growth based on the separate trend. Public expenditure is one of the main drivers of increasing private costs (Dritsakis, 2004).

Foreign Researches

The typical researches about the impact of state budget government on local economic growth in foreign countries include:

Afonso & Fernandes (2003) measured the efficiency of state budget expenditure in some localities of Portugal by using non-parameter techniques related to the production possibility frontier. In addition, in this study, a scale of provincial competitiveness index was also developed when considering the input and output factors of 51 provinces and cities in Portugal. Thereby, it is determined that the expansion and increase of budget expenditure cause waste for provinces and cities. However, when studying samples taken on average, with fewer savings in resources, it shows a significant improvement in the output results when increasing state budget expenditure in these provinces and cities.

Wu et al. (2010) rechecked the causal relationship between government spending and economic growth by taking the Granger causality test, which was developed based on the inheritance of Hurlin's research model (2004, 2005). The paper used panel data including 182 countries in the period from 1950 to 2004. The empirical result strongly supported Wagner's Law and the hypothesis that government spending is helpful for economic growth regardless of how government spending and economic growth are measured.

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.

Attari & Javed (2013) explored the relationship between inflation rate, economic growth, and government spending in Pakistan. The investigation was taken by using the ARDL model to process time-series data in the period from 1980 to 2010. The result shows that there is a long-run relationship between inflation rate, economic growth, and government spending, which means that government spending brings positive externality and linkage. In the short run, government spending positively affects economic growth. The causality test result shows that there exists a one-direction causal relationship between economic growth and government spending.

Roşoiu (2015) analyzed the impact of government income and spending on economic growth in Romania for the period from 1st quarter of 1998 to 1st quarter of 2014. The paper used the Granger causality test through Vector Error Correction Model (VECM) to determine whether the government controls the economy. The response functions show strong volatility in GDP growth and government spending.

Beyond the papers above, in general, there are also many studies related to state budget expenditures and economic growth in the world. However, the studies are not really consistent about the impact of state budget expenditure on economic growth. Thereby, there are some studies with positive effects, such as Devarajan et al. (1996); Yasin (2003); Cooray (2009) and Alexiou (2009). In contrast, there are also some papers finding state budget expenditure has a negative impact on economic growth, such as Nurudeen & Usamn (2010); Barro (1990) or has no impact on economic growth like Easterly & Rebelo (1993).

Domestic Researches

In Vietnam, Su & Bui (2009) built an urban budget model for big cities in Vietnam also has some similarities with studies for local budget but for the big city (Ho Chi Minh City) and mainly focuses on some issues such as: establishing revenue sustainability for urban government by maximizing local revenue (100% revenue) and strengthening municipal government's authority to determine tax revenue; delineating expenditure tasks of urban government, thereby reforming urban administration, promoting socialization and improving the efficiency of local public service delivery.

In addition, there are some studies having similarities in approach and research content, such as *"Improving the budget management efficiency of Soc Trang province for the period from 2015 to 2020"* by Huynh (2015) and *"Improving the budget management efficiency of Soc Trang province for the period from 2011 to 2015 and a vision to 2020"* by To (2012). However, they mainly used a theoretical basis, in which concepts, actual local situation, and impose solutions according to the traditional method. Specifically, To (2012) used a qualitative method in analyzing the impact of state budget expenditures on local economic growth in An Giang. Particularly, Huynh (2015) used a quantitative method in analyzing the relationship between state budget expenditures and local economic growth in Soc Trang province. He confirmed the nonlinear relationship between state budget expenditure over GDP and GDP per person.

Through the literature review, it can be seen that there are very little researches about state budget expenditures on economic growth at the local scale in Vietnam. In addition, in these studies, the evaluation of impacts of state budget expenditures on economic growth is undertaken by different methods such as ordinary least squares (OLS), fixed effects model (FE), and random effects model (RE) with panel data. However, these methods do not handle the endogenous phenomenon that often occurs in macroeconomic models. This might be a reason for different

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.

estimations of positive, negative, and nonlinear relationships between state budget expenditures on economic growth at national and local levels.

METHODOLOGY

Research Model

Based on the research of Cooray (2009) and Alexiou (2009), we develop a model to evaluate the impact of state budget expenditure on economic growth through production function, including government capital in the form of Cobb-Douglas function as follows:

$$Y(t) = A\big(K(t)\big)^{\alpha}\big(L(t)\big)^{\beta}(G(t))^{1-\alpha-\beta} \quad (1)$$

Where Y is the gross regional domestic product (GRDP), K is the province's private investment capital, G is the province's budget expenditure, L is the province's labor force, and A is the technological progress. With $\alpha + \beta < 1$

Taking the natural logarithm of two sides of equation (1), we get:

$$\ln Y(t) = \ln A + \alpha \times \ln K(t) + \beta \times \ln L(t) + \big(1-\alpha-\beta\big)\ln G(t) \quad (2)$$

To evaluate the impact of state budget expenditure on local economic growth in Vietnam, our approach is a dynamic panel regression model for 61 Vietnamese provinces and cities in the period from 2011 to 2018. The proposed model for this paper has the following form:

$$lnGRDP_{it} = \beta_0 + \beta_1 lnGRDP_{it-1} + \beta_2 lnK_{it} + \beta_3 lnL_{it} + \beta_4 lnG_{it} + \varepsilon_{it} \quad (3)$$

Where: i donates for the i-th locality, t represents the t-th year. GRDP, K, L, G are the province's gross domestic product, investment capital, labor ratio, local state budget expenditure, respectively.

To represent the local economic growth rate, we subtract both sides of equation (3) for $lnGRDP_{it-1}$, the model obtained is as follows:

$$lnGRDP_{it} - lnGRDP_{it-1} = \beta_0 + (\beta_1 - 1)lnGRDP_{it-1} + \beta_2 lnK_{it} + \beta_3 lnL_{it} + \beta_4 lnG_{it} + \varepsilon_{it} \quad (4)$$

In this model, the local economic growth is measured by:

$$growth_{it} = lnGRDP_{it} - lnGRDP_{it-1}$$

Research Hypothesis

Local GRDP at the beginning of the period ($\mathbf{lnGRDP_{it-1}}$)

According to Solow-Swan's theory about economic growth at the national level, this variable will have a negative value representing the integrative effects. Particularly, the growth rate of developing countries will be bigger than developed countries. In this paper, we still

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.

expect that the coefficient of $(\beta_1 - 1)$ will have a negative value indicating that the economic growth rate will be lower in the provinces with larger economic scale and higher in the provinces with smaller economic scale.

State budget expenditure variable ($\mathbf{lnG_{it}}$)

Similar to the previous researches by Devarajan et al. (1996), Afonso & Fernandes (2003), Yasin (2003), Cooray (2009), Alexiou (2009), and Roşoiu (2015), we also expect that there is a positive effect from state budget expenditure to local economic growth.

Other independent variables include local investment capital (lnK_{it}), labor rate (lnL_{it}) are expected to have a positive impact on local economic growth in accordance with the endogenous growth theory.

Variables and Data

In the process of splitting and merging some provinces/cities, so the data of several provinces and cities will be changed over years. Therefore, this paper conducted with 61 provinces and cities in Vietnam (lack of statistical data of Ca Mau and Gia Lai) ensures a representative sample of over 90% of the localities to analyze the impacts of these provinces and cities in Vietnam, particularly 96.8%. We collect data from reliable sources such as the General Statistics Office of Vietnam, the Statistical Office of 61 provinces and cities in the sample, and the Ministry of Finance in the period from 2011 to 2018. The calculations of variables in the model and data sources are shown in Table 1.

Table 1
SUMMARY OF VARIABLES IN THE MODEL

ID	Variables	Notation	Measures	Data Sources
1	Economic growth	$growth_{it}$	*Natural logarithm* of GRDP: $lnGRDP_{it} - lnGRDP_{it-1}$ Where: $GRDP_{it}$ and $GRDP_{it-1}$ is GRDP of the province/city i in year t and year t-1, respectively.	General Statistics Office of Vietnam, the Statistical Office of 61 provinces and cities in the sample
2	GRDP at the beginning of the period	$lnGRDP_{it-1}$	*Natural logarithm* of GRDP of the province/city i in year t-1	
3	Investment capital	lnK_{it}	*Natural logarithm* of the realized investment capital of the province/city i in year t.	
4	Labor force	lnL_{it}	*Natural logarithm* of the percentage of laborer over 15 years old working in the city or province in year t.	
5	State budget expenditure	lnG_{it}	*Natural logarithm* of the state budget expenditure of the province/city i in year t.	

Source: From the authors

Estimation Method

We estimate model (4) by the SGMM method of Arellano & Bond (1991). This method is commonly used in estimations of linear dynamic panel data or panel data where

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.

heteroskedasticity and autocorrelation exist. With estimators of SGMM, endogenous phenomena that often occurs in macroeconomic models are handled.

SGMM is an appropriate method for this research due to several reasons. Firstly, the panel data of this research, including 61 provinces and cities for the period from 2011 to 2018, will have small T (8 years), large N (61 provinces and cities), which means that there are few timelines but many observations.

Secondly, this method is suitable to estimate the models with one or two sides of the equation having lagged variables. With these models, static panel estimations will not allow creating instrument variables from themselves variables in the models.

Thirdly, this method can be used when the independent variables are not the strictly exogenous ones, which means that there is autocorrelation in residuals, or exists endogenous variables in the model.

Finally, when a model has individual fixed effects and heteroskedasticity or autocorrelation of errors, this method is appropriate due to removing separate fixed effects and fixing model defects.

EMPIRICAL RESULTS

Descriptive Statistics of the Research Sample and Correlation between Variables

Descriptive statistics

The results of descriptive statistics expressing typical quantities of variables are shown in Table 2.

Table 2
DESCRIPTIVE STATISTICS OF VARIABLES

Variables	No. of observations	Mean	Standard deviation	Min	Max
growth	427	0.1132217	0.1529237	-1.442419	2.396714
LLNGRDP	427	10.64847	0.9237117	8.312258	13.92401
LNG	488	9.550014	0.6224104	8.213463	12.57022
LNK	488	9.798986	0.8779857	8.028358	13.01913
LNL	488	4.093892	0.0627685	3.935804	4.290379

Source: Calculating from STATA 16.0 by the authors.

Correlation coefficient matrix

The correlation between variables in the model is shown through correlation coefficient matrix in Table 3

Table 3
CORRELATION COEFFICIENT MATRIX

	growth	llngrdp	lng	lng1	lng2	lnk	lnl
growth	1						
llngrdp	-0.1160	1					
lng	-0.0154	0.7435	1				
lng1	0.0269	0.6978	0.7899	1			
lng2	0.0263	0.6528	0.8489	0.7044	1		
lnk	0.0300	0.8400	0.7663	0.7132	0.6649	1	

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.

lnl	0.0317	-0.4928	-0.3024	-0.3576	-0.1804	-0.438	1

Source: Calculating from STATA 16.0 by the authors.

The correlation coefficient measures the degree of the linear relationship between two variables, regardless of whether one variable depends on the other. Based on the result of the correlation coefficient of variables in the model, it shows that the independent variables are highly correlated with the dependent variables. To independent variables, the correlation coefficients of the pairs of independent variables, LNG and LNK, are higher than 60%.

To ensure that there is no multicollinearity in the model, we test this phenomenon.

Multicollinearity Test

Table 4
TEST MULTICOLLINEARITY OF INDEPENDENT VARIABLES

Variables	VIF(1)	VIF(2)
LNG	2.69	
LLNGRDP	4.03	4.04
LNK	4.05	3.93
LNL	1.35	1.42
Average VIF	3.03	2.90

Source: Calculating from STATA 16.0 by the authors

Multicollinearity is the phenomenon that independent variables in the model are linearly dependent on each other and can be expressed as a function. According to Kleinbaum et al. (1988), as an empirical rule, when the VIF is greater than 5, there is high multicollinearity between the variables. Based on the VIF test between independent variables by Stata 16 software, there is not high multicollinearity between the variables in the models. Thereby, we use these variables for the regression model.

Estimation Result and Discussion

We estimate a model of the impact of state budget expenditure on local economic growth in Vietnam by the SGMM method. The result is shown in Table 5.

Table 5
ESTIMATION RESULT OF DYNAMIC MODEL BY SGMM METHOD

GROWTH	Coefficient	Std. Error	t	P>t
L.LNGRDP	-0.6700193***	0.1146043	-5.85	0.000
LNG	0.1959805***	0.0541544	3.62	0.001
LNK	0.5266729***	0.0938185	5.61	0.000
LNL	-0.7178429	0.5712541	-1.26	0.214
_CONS	3.1153240	2.5303200	1.23	0.223
AR (1) p-value	0.025			
AR (2) p-value	0.344			
Hansen p-value	0.284			
Number of groups	61			
Number of instruments	11			
Second stage F-test p-value	0.000			

Note: The estimation result of the impact of state budget expenditure on local economic growth in Vietnam by SGMM method. AR (1), AR (2) p-values are the p-values of 1st order and 2nd order correlation tests of residuals.

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.

Hansen p- value is the p-value of Hansen test for the fit of instrument variables in the model. Second stage F-test p-value is the p-value of F test for the fit of the model. *** Significant level of 1%; ** Significant level of 5%; * Significant level of 10%
Source: Calculating from STATA 16.0 by the authors

The estimation model in Table 5 shows that the model has AR (1) p-value less than the significant level of 5% and AR (2) p-value greater than the significant level of 10%. Therefore, there is a first-order correlation but not a second-order correlation in the model. In addition, the p-value of the Hansen test is greater than the significant level of 10%, which means that the instruments used in the model are appropriate. The p-value of the F test is less than the significant level of 1%, which shows that the model is fit. Table 5 also indicates that another constraint of the SGMM model is also satisfied that the number of instrument variables should not exceed the number of observation groups. Thus, the model is reliable to conduct the analysis.

The estimation result of the dynamic model for the impact of state budget expenditure on local economic growth in Vietnam shows that the coefficients of L.LNGRDP, LNG, LNK variables are statistically significant at 1%. Therefore, GRDP, in the beginning, state budget expenditure and investment capital in provinces have an impact on local economic growth in Vietnam. Besides, the impact of these variables is consistent with our expectations. Particularly:

Table 5 indicates that the coefficient of L.LNGRDP variable is -0.67 with a negative value and statistically significant at 1%. This result is consistent with the integrative effects. Specifically, because the coefficient of L.LNGRDP variable is negative, the provinces and cities with large economic scale (large GRDP) will have a lower growth rate than those with small economic scale (small GRDP). This result is consistent with the previous studies by Devarajan et al. (1996); Afonso & Fernandes (2003); Yasin (2003); Cooray (2009); Alexiou (2009) and Roşoiu (2015).

To the state budget expenditure, the coefficient of LNG variable is 0.196 with a positive value and statistically significant at 1%. It shows that the increase in state budget expenditure will enhance local economic growth. Specifically, a 1% increase in state budget expenditure will increase local economic growth by 0.196%. This result is consistent with the impact direction in the previous studies by Devarajan et al. (1996); Afonso & Fernandes (2003); Yasin (2003); Cooray (2009); Alexiou (2009) and Roşoiu (2015).

The coefficient of LNK variable is 0.527 with a positive value and statistically significant at 1%. It shows that the increase in investment capital will enhance local economic growth. Specifically, a 1% increase in investment capital will increase local economic growth by 0.527%. This result is consistent with the impact direction in the previous studies by Devarajan et al. (1996); Afonso & Fernandes (2003); Yasin (2003); Cooray (2009); Alexiou (2009); and Roşoiu (2015).

CONCLUSION AND POLICY IMPLICATION

The research purpose is to evaluate the impact of state budget expenditure on local economic growth in Vietnam. From there, the recommendations and solutions are imposed to enhance the efficiency of state budget expenditure to local economic growth in Vietnam. To evaluate the impact of state budget expenditure on local economic growth in Vietnam, we use a dynamic panel regression model for 61 provinces and cities in Vietnam for the period from 2011 to 2018.

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.

The result shows that the increase in state budget expenditure will enhance local economic growth. Specifically, a 1% increase in state budget expenditure will increase local economic growth by 0.196%. Therefore, to ensure stable economic growth, the paper imposes some policy implications related to state budget expenditure such as: Firstly, budget in general and state budget expenditure, in particular, must be associated with an economic policy with the goal of developing economy in the medium and long term; Secondly, state budget expenditure must be based on the earned revenue, but the revenue is mainly formed from economic activities and associated to economic policy and macro goals. Thirdly, state budget expenditure must ensure transparency and publicity in the whole process from formulation, implementation, settlement, reporting, and auditing. Finally, state budget expenditure must balance between sectors and localities, between provinces and their localities, solve the relationship of locality-sector development, enhance comprehensive development, create interactive and mutually supportive relationships between sectors and localities.

Because of limitations in collecting data, we only analyze data for the period from 2011 to 2018. We hope that the later researchers may study longer periods to get a better overview.

REFERENCES

Afonso, A., & Fernandes, S. (2006). Measuring local government spending efficiency: Evidence for the Lisbon region. *Regional Studies*, *40*(1), 39-53.

Alexiou, C. (2009). Government spending and economic growth: Econometric evidence from the South Eastern Europe (SEE). *Journal of Economic and Social Research*, *11*(1), 1.

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, *58*(2), 277-297.

Attari, M.I.J., & Javed, A.Y. (2013). Inflation, economic growth and government expenditure of Pakistan: 1980-2010. *Procedia Economics and Finance*, *5*, 58-67.

Bahl, R.W., & Linn, J.F (1992). *Urban public finance in developing countries*. New York: Oxford Univ. Press.

Barro, R.J. (1990). Government spending in a simple model of endogeneous growth. *Journal of Political Economy*, *98*(5, Part 2), S103-S125.

Barro, R.J. (1989). The Ricardian approach to budget deficits. *Journal of Economic Perspectives*, *3*(2), 37-54.

Cooray, A. (2009). Government expenditure, governance and economic growth. *Comparative Economic Studies*, *51*(3), 401-418.

Curristine, T., Lonti, Z., & Joumard, I. (2007). Improving public sector efficiency: Challenges and opportunities. *OECD Journal on Budgeting*, *7*(1), 1-41.

Devarajan, S., Swaroop, V., & Zou, H.F. (1996). The composition of public expenditure and economic growth. *Journal of Monetary Economics*, *37*(2), 313-344.

Dritsakis, N. (2004). Defense spending and economic growth: an empirical investigation for Greece and Turkey. *Journal of Policy Modeling*, *26*(2), 249-264.

Easterly, W., & Rebelo, S. (1993). Fiscal policy and economic growth. *Journal of Monetary Economics*, *32*(3), 417-458.

Feriyanto, N., El Aiyubbi, D., & Nurdany, A. (2020). The impact of unemployment, minimum wage, and real gross regional domestic product on poverty reduction in provinces of indonesia. *Asian Economic and Financial Review*, *10*(10), 1088-1099.

Gaffar, E.U.A. (2016). Prediction of regional economic growth in east kalimantan using genetic algorithm. *International Journal of Computing and Informatics (IJCANDI)*, *1*(2), 58-67.

Hoang, T.C.T., Pham, T.H., & Pham T.T. (2010). *The impact of public spending on economic growth in localities in Vietnam*. Research paper NC-19/2020, research paper of VEPR.

Huynh, X.P. (2015). *Improving the efficiency of state budget management soc trang province for 2015 - 2020.* Unpublished doctoral dissertation, Banking University of Ho Chi Minh City.

Keynes, J.M. (2018). *The general theory of employment, interest, and money*. Springer.

Kleinbaum, D.G., Kupper, L.L., & Muller, K.E. (1988). Applied regression analysis and other multivariable methods Boston. *Massachusetts: PWS-Kent Publishing Company*.

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.

Nigar, F.M, & Saxena, P. (2013). Applications of genetic algorithms in GDP forecasting. *International Journal of Technical Research and Applications, 1*(3), 52-55.

Nurudeen, A., & Usman, A. (2010). Government expenditure and economic growth in Nigeria, 1970-2008: A disaggregated analysis. *Business and Economics Journal, 2010*(4), 1-11.

Ricardo, D. (1951). *The works and correspondance of David Ricardo: Ed by Piero Sraffa with the collaboration of MH Dobb*. University Press for the Royal Economic Society.

Roşoiu, I. (2015). The impact of the government revenues and expenditures on the economic growth. *Procedia Economics and Finance, 32*, 526-533.

Shah, A. (Ed.). (2007). *Budgeting and budgetary institutions*. World bank publications.

Su, D.T., & Bui, T.M.H. (2009). Establishing urban budget models for major cities in Vietnam. *Economic Development Magazine, March 2009*, 13-20.

Hidayat, Y., Sutijo, B., Bon, A.T., & Supian, S. (2016). Indonesian financial data modeling and forecasting by using econometrics time series and neural network. *Global Journal of Pure and Applied Mathematics*, *12*(4), 3745-3757.

To. T.H. (2012). *Improving the efficiency of state budget management in An Giang province for 2011-2015 and a vision to 2020*. Unpublished doctoral dissertation, Banking University of Ho Chi Minh City.

Wagner, P.D. (2012). Muscle intracellular oxygenation during exercise: optimization for oxygen transport, metabolism, and adaptive change. *European Journal of Applied Physiology*, *112*(1), 1-8.

Wildavsky, A. (1964). *The politics of the budgetary process.* Little Brown: Boston.

World Bank (2020). *The world bank in Vietnam.*

Wu, S.Y., Tang, J.H., & Lin, E.S. (2010). The impact of government expenditure on economic growth: How sensitive to the level of development? *Journal of Policy Modeling, 32*(6), 804-817.

Yasin, M. (2011). Public spending and economic growth: Empirical investigation of Sub-Saharan Africa. *Southwestern Economic Review, 30,* 59-68.

Citation Information: Hung, P.T., & Hang, T.T.H. (2022). The impact of state budget expenditure on local economic growth in vietnam. *Academy of Strategic Management Journal, 21*(1), 1-11.