

The Influence of Regional Expenditure on The Regional Economy in Regencies and Cities in Indonesia

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ABSTRACT

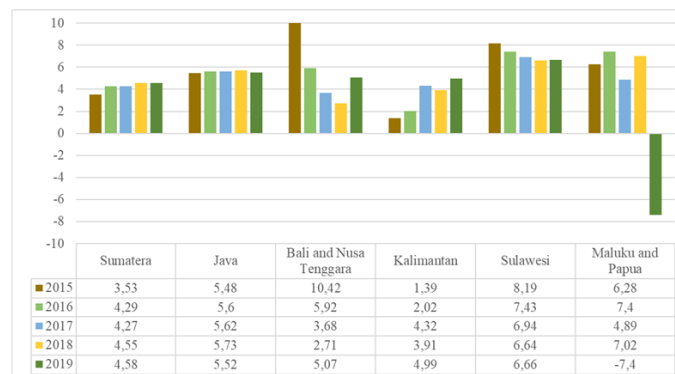
This study aims to see how the contribution of personnel, goods and services, and capital expenditures, the component of expenditure with the most significant portion of local government, influences the regional economy (GRDP). The data used in this study are data on the realization of personnel expenditure, goods and services expenditure, capital expenditure, and GRDP data to represent the regency and city regional economy from 2010 to 2019. The sample in this study is all regencies and cities in Indonesia that meet the criteria, namely 480 regencies and cities. Data is taken from the websites of the Central Agency of Statistics (BPS) and the Directorate General of Fiscal Balance (DJPK). The results showed that personnel, goods and services, and capital expenditures both partially and simultaneously positively and statistically significantly affected the regional economy (GRDP).

Keywords: Personnel Expenditure; Goods and Services Expenditure; Capital Expenditure; Regional Economy (GRDP).

INTRODUCTION

In the implementation of regional autonomy, local governments are granted the rights, authorities, and responsibilities necessary to manage their own affairs and serve the interests of the people within their autonomous regions. A key indicator of the success of local governments in executing regional autonomy is their ability to enhance the economic conditions of their regions (Bank Indonesia, 2007). By managing regional resources through the Regional Revenue and Expenditure Budget (APBD), local governments play a crucial role in fostering economic growth and development within their areas.

According to the Regulation of the Minister of Home Affairs (Permendagri) Number 13 of 2006, local governments have several functions through APBD. These functions include allocation and stabilization. The allocation function means that the budget established by the region should aim to create jobs, reduce unemployment, minimize resource wastage, and improve the efficiency and effectiveness of the economy. The stabilization function indicates that the regional budget acts as a tool to maintain and promote the fundamental balance of the regional economy. Therefore, local governments must appropriately allocate financial resources through the APBD to stimulate the regional economy.

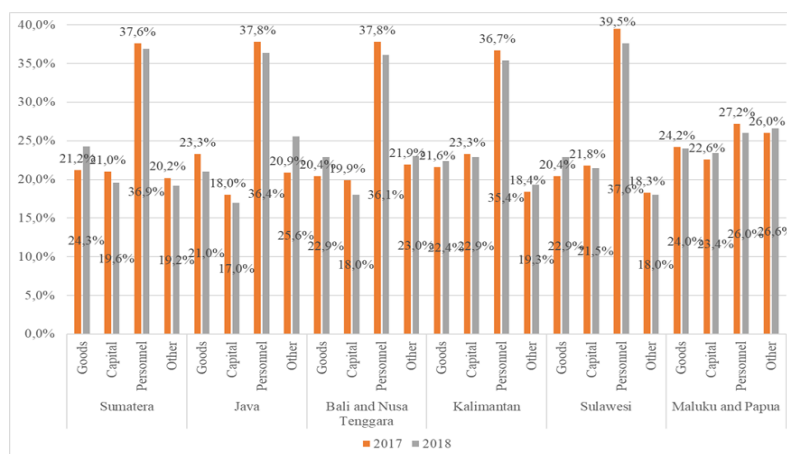


Source: Results Processed from BPS (2024)

Figure 1
Economic Growth by Region from 2015 to 2019

Regional financial statistics published by BPS indicate that regional expenditure has consistently increased from 2015 to 2019. Despite fluctuating or declining economic growth, this trend is evident across various regions, including Bali, Nusa Tenggara, Maluku, and Papua. The rising trend in local government spending through regional expenditure raises questions about whether it has been optimally utilized by local governments to boost the economy in these areas effectively. Specifically, the lack of alignment between governments increasing expenditure and economic growth in regions such as Bali, Nusa Tenggara, Maluku, and Papua suggests that there may be inefficiencies in government funds. Overall, personnel expenditures represented the most significant portion of expenditures in each region. From 2017 to 2018, capital and personnel expenditures generally declined across all regions, while expenditures on goods and other items increased. However, these changes in the composition of regional expenditures did not correlate with regional economic growth, based on Figure 1.

In 2018, the Maluku and Papua regions experienced the highest economic growth. During this period, these regions saw a decrease in personnel and goods expenditures while the ratios of capital and other expenditures increased. In contrast, the Bali and Nusa Tenggara region recorded the lowest economic growth in 2018, experiencing changes in expenditure composition, specifically, a decrease in capital and personnel expenditures, alongside an increase in goods and other expenditures from 2017 to 2018.



Source: Results Processed from DJPK (2024)

Figure 2.
Composition of Regional Expenditure by Region from 2017 to 2018

Empirical research on the impact of different regional expenditures on the regional economy is essential. Understanding these effects allows local governments to make informed decisions when allocating funds and evaluating budgets, ultimately enhancing the effectiveness and efficiency of efforts to stimulate the regional economy. Several studies have been conducted on the impact of local government spending on the regional economy in Indonesia. For instance, research by Hidayat and Nalle (2017) indicates that government spending positively and significantly influenced regional economic growth in East Java Province between 2010 and 2015. In contrast, a study by Lantu et al. (2019) found that direct and indirect spending had no significant effect on economic growth in Bitung City. This study analyzes regional expenditures for personnel, goods and services, and capital across all regencies and cities in Indonesia from 2010 to 2019 to determine their economic impact.

Literature Review

Regional Autonomy

Law (UU) Number 23 of 2014 concerning Regional Government defines regional autonomy as the rights, authorities, and obligations of an autonomous region to manage its governmental affairs and serve the interests of its community. Regional autonomy aims to accelerate community welfare across all regions by enhancing the quality of services, empowering communities, encouraging active participation, and strengthening regional competitiveness while adhering to the principles of democracy, equity, and justice and respecting the unique characteristics of each region. Regional

autonomy aims to empower regions to manage their own development, which requires creativity, innovation, and independence to reduce reliance on the central government (Christia & Ispriyarso, 2019). For a region to effectively implement regional autonomy, its local government must be able to manage regional finances appropriately. This means that the local government should be capable of exploring, managing, and utilizing financial resources to support the administration of the government (Halim, 2001, Saputra, 2014).

Regional Revenue and Expenditure Budget

The Regional Revenue and Expenditure Budget, commonly known as APBD, is an annual financial plan formulated by local governments in collaboration with the Regional People's Representative Council (DPRD). This budget is established through regional regulations as part of implementing decentralization tasks. Regarding the regional economy, the APBD is a fiscal instrument that functions as a policy in stabilizing the economy and encouraging economic growth through providing facilities, encouragement, and coordination of community economic activities to promote economic development in the region. (Mardiasmo, 2004, cited in DJPK, 2018).

Regional Economy

Gross Regional Domestic Product, abbreviated as GRDP, is one of the most important indicators to determine the economic condition of a region. Local governments can influence the regional economy through fiscal policy. Government fiscal policy in the form of government spending affects the aggregate demand for goods and services (Mankiw, 2018). Government spending can be seen from the identity of the national income balance according to the Keynesian framework expressed as $Y = C + I + G + (X-M)$, where Y is aggregate demand, C states consumption, G states government spending, and X-M is net exports (Azwar, 2016).

Local Expenditure and Keynesian Theory

Local expenditures are the responsibility of local governments, recognized as a deduction from net assets, allocated fairly and equitably to ensure that all levels of society can benefit. Local governments use regional expenditures to fund the implementation of government activities that are under their authority. Properly allocating regional expenditures plays an important role in achieving economic stability and accelerating regional economic growth. According to Keynesian economic theory, government spending through expenditure contributes to the growth of the Gross Domestic Product (GDP) (Liu et al., 2008). Increased government spending boosts demand for goods and services, which raises providers' revenues. Government spending can also increase income for the community through subsidies and social assistance spending. In addition, government spending will also increase civil servants' income in the form of salaries or honoraria. Income for the community will lead to increased consumption, resulting in increased demand for goods and services and so on, until it creates a multiplier effect. In other words, directly or indirectly, government spending will increase aggregate demand, leading to a region's GDP increase.

METHOD

This research adopts an applied quantitative approach. Quantitative research is a method employed to investigate specific populations or samples through data collection using various research instruments, which are then analyzed statistically to test hypotheses (Sugiyono, 2013). This study utilizes secondary data from relevant institutions, specifically DJPK and BPS, encompassing personnel expenditure, goods and services expenditure, and capital expenditure, along with GRDP data for all regency and city governments in Indonesia. The research period spans ten years, from 2010 to 2019. According to publications from BPS, there were 514 regencies and cities in Indonesia as of the end of 2019. However, 34 regencies and cities lacked complete data. As a result, the sample includes 480 regencies and cities, yielding 4,800 observations. The data analysis technique employed in this study is the panel data regression model. The dependent variable is the regional economy, measured by GRDP for each regency and city in billion rupiahs. In contrast, the independent variables consist of the realization of personnel expenditure, goods and services expenditure, and capital expenditure, also in billion rupiahs. Notably, the analysis incorporates a four-year time lag for capital expenditure. The analytical process was conducted using the STATA application.

RESULT

Widarjono (2005) identifies three methods for estimating panel data regression models: the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM). Several tests must be conducted to determine the most appropriate model for the available data, including the Chow, Hausman, and Lagrange Multiplier tests. The Chow test is utilized to identify the most suitable model for a given situation, a time frame between the Common Effect Model and the Fixed Effect Model. The hypothesis in this test is H0: the best model is the Common Effect model, while H1: the best model is the Fixed Effect model. The Chow test results in Table 1 show that the Prob > F value is 0.0000, smaller than the 5% significance level ($\alpha = 5\%$). H0 is rejected, so the Fixed Effect Model is selected based on this.

Table 1
Chow Test Results

F (3.2397)	=	1258.49
R-squared (<i>overall</i>)	=	0.7558
Prob > F	=	0.0000

Source: Processed data

After knowing that the Fixed Effect Model is better than the Common Effect Model, the Lagrange Multiplier test does not have to be done. Next, the best model between the Fixed Effect Model and the Random Effect model will be determined again. The test will use the Hausman test. The hypothesis in this test is H0: the best model is the Random Effect Model, while H1: the best model is the Fixed Effect Model. The results of the Hausman test presented in Table 2 indicate that the prob > chi2 value is 0.0000, which is smaller than the 5% significance level ($\alpha = 5\%$). Based on this, H0 is rejected, so the Fixed Effect Model is selected.

Table 2
Hausman Test Results

Chi2(3)	=	338.66
Prob > chi2	=	0.0000

Source: Processed data

In classical linear regression analysis, the Ordinary Least Square (OLS) method must be used to meet classical assumptions. Ghazali and Ratmono (2017) explain that when the classical assumptions are satisfied, the Ordinary Least Squares (OLS) estimation model, based on the Gauss-Markov theorem, will yield an unbiased linear estimator with the lowest possible variance, known as the Best Linear Unbiased Estimator (BLUE). The classical assumptions tested in this study include the Normality Test, Multicollinearity Test, Heteroscedasticity Test, and Autocorrelation Test. The first classical assumption that must be tested is residual normality. The normality assumption test is carried out to determine whether the residuals in the regression model have a normal distribution (Ghozali & Ratmono, 2017). The regression model must fulfill this assumption to provide valid statistical test results.

Table 3.
Skewness and Kurtosis Test Results

Chi2(2)	=	3398.85
Prob > chi2	=	0.0000

Source: Processed data

Residual normality testing is done using the Skewness and Kurtosis Test. The hypothesis in this test is that H0: residuals are normally distributed, while H1: residuals are not normally distributed. According to the residual normality test results shown in Table 3, the Prob > chi2 value is 0.0000. It indicates that we reject H0, implying that the residuals are not normally distributed. According to Ghazali and Ratmono (2017), the residual normality assumption test needs to be considered for samples with small sizes so that the residual normality test can be ignored for large samples. Gujarati and Porter (2009) say that the sample size is relatively large if the number of observations exceeds 100. Therefore,

in this study, the residual normality test can be ignored. The following classic assumption is the absence of high multicollinearity between independent variables. The multicollinearity test is carried out to determine whether there is high multicollinearity between independent variables. According to Ghozali and Ratmono (2017), independent variables show high multicollinearity if the Variance Inflation Factor (VIF) value is more than 10 or the 1 / VIF value is less than 0.10.

Tabel 4
Multicollinearity Test Results

Variables	VIF	1/VIF
PG	5.34	0.187274
BJ	7.33	0.136376
MD(-4)	3.34	0.299262

Source: Processed data

According to the multicollinearity test results presented in Table 4, the VIF value for each independent variable is no greater than 10, and the 1/VIF value is no less than 0.10. Thus, the value suggests no multicollinearity among the independent variables. The classical assumption that needs to be tested next is the assumption that the residual values in the regression model have the same variance. For this reason, heteroscedasticity testing is carried out, which aims to detect whether there are symptoms of heteroscedasticity or whether the residual variance is not constant. The heteroscedasticity test was carried out in this study using the Modified Wald Test. With the significant level used at 5% ($\alpha = 5\%$), the hypothesis used in this test is H0: there is no heteroscedasticity problem, while H1: there is a heteroscedasticity problem.

Table 5
Modified Wald Test Results

Chi2(480)	=	984.01
Prob > chi2	=	0.0000

Source: Processed data

Based on Table 5, the Prob > chi2 value is 0.0000, which is less than $\alpha = 5\%$, so H0 is rejected. The value indicates a problem of heteroscedasticity, which means that the assumption of constant variance in the residuals is not satisfied. A robust method is employed to analyze regression using the STATA application to address this issue. The final classical assumption that must be met is the assumption of no autocorrelation. An autocorrelation test is conducted to assess whether there is a correlation between the residuals in period t and those in period t-1 (Ghozali & Ratmono, 2017). This study carried out the autocorrelation test using the Wooldridge Test. With the significant level used at 5% ($\alpha = 5\%$), the hypothesis used in this test is H0: there is no autocorrelation problem, while H1: there is an autocorrelation problem. From the test results in Table 6, the prob>chi2 value is 0.0000, smaller than the 5% significance level. The value suggests an issue with autocorrelation in the regression model. The autocorrelation problem is also overcome by running the robust command when regressing the data with the help of the STATA application.

Table 6.
Wooldridge Test Results

F(1, 479)	=	32.661
Prob > chi2	=	0.0000

Source: Processed data

Regression testing of the selected model is carried out to see how each independent variable influences the dependent variable simultaneously and partially (Ghozali & Ratmono, 2017). Based on previous tests, the estimation model selected in this study is the Fixed Effect Model, and robust commands will be added when conducting data regression testing.

Table 7
Results of the Panel Data Regression Test

Variables	Coefficient	Std. Error (Robust)	t	P > t
PG	7.947118	4.556157	1.74	0.082
BJ	41.87655	6.679185	6.27	0.000
MD (L4)	7.47028	2.764324	2.70	0.007
Constant	1685.146	3019.776	0.56	0.577
R-Squared (Overall)				0.7558
Prob > F				0.0000

Source: Processed data

Based on the regression test results in Table 7, the mathematical regression model is presented as follows. $Y_{it} = 1685,146 + 7,947118 PG_{it} + 41,87655 BJ_{it} + 7,47028 MD_{it-4} + \epsilon$

From the model equation formed, it can be seen that all coefficients of the personnel expenditure (PG), goods and services expenditure (BJ), and capital expenditure (MD) variables are positive. It demonstrates a direct proportional relationship between the independent and dependent variables. As the independent variable increases, the dependent variable also tends to increase. The constant has a value of 1685.146. The value indicates that if all independent variables are zero, the value of GRDP in year t will be IDR1685.146 billion. The coefficient for the personnel expenditure variable is 7.947118. The positive coefficient indicates that personnel expenditure is directly proportional to GRDP. For every additional personnel expenditure of IDR1 billion in year t, GRDP will increase by IDR7.947118 billion in the same year, assuming other variables are constant. Then, the coefficient for the goods and services expenditure variable is 41.87655. It shows that expenditure on goods and services has a positive relationship or is directly proportional to GRDP. For every additional Rp1 billion of goods and services expenditure in year t, GRDP will increase by IDR41.87655 billion that year, assuming other variables are constant. Finally, the coefficient for the capital expenditure variable is 7.47028. Like the other independent variables, the capital expenditure variable has a positive or directly proportional relationship with GRDP. For every additional IDR1 billion of capital expenditure in year t-4, GRDP increases by IDR7.47028 billion in year t, assuming other variables are constant.

Based on Table 7, the coefficient of determination (R-squared Overall) is 0.7558. The value means that about 75.58% of the variation in GRDP can be explained by the variation of the three independent variables in this study, while other variables outside the model explain the remaining 24.42%. The simultaneous significance test (F-statistical test) shows the Prob > F value is 0.0000 or more minor than the significance level of 5%, so it is concluded that the independent variables together or simultaneously influence the dependent variable. Meanwhile, the t-statistical test results shown in Table 7 are the results of the STATA application output, which still uses a two-tailed probability hypothesis. This study uses a one-tailed probability hypothesis so that the probability value $P > |t|$ must be adjusted. Based on Table 8, all independent variables, namely personnel expenditure, goods and services expenditure, and capital expenditure, have a $P > |t|$ value smaller than the significance level of 5%, meaning that personnel expenditure, goods and services expenditure, and capital expenditure partially have a significant effect on the regional economy.

Tabel 8.
Adjustment Result of Probability Value $P > |t|$ One-tailed

Variables	Coefficient	$P > t $ (One-tailed)
PG	7.947118	0.041
BJ	41.87655	0.000
MD	7.47028	0.003

Source: Processed data

The Effect of Personnel Expenditure on the Regional Economy

The first hypothesis (H1) is that personnel expenditure positively and significantly affects the regional economy. This hypothesis assumes that personnel expenditure should positively and significantly affect the regional economy. It means that a positive and significant increase will follow an increase in personnel expenditure in GRDP. Testing this hypothesis aims to obtain empirical

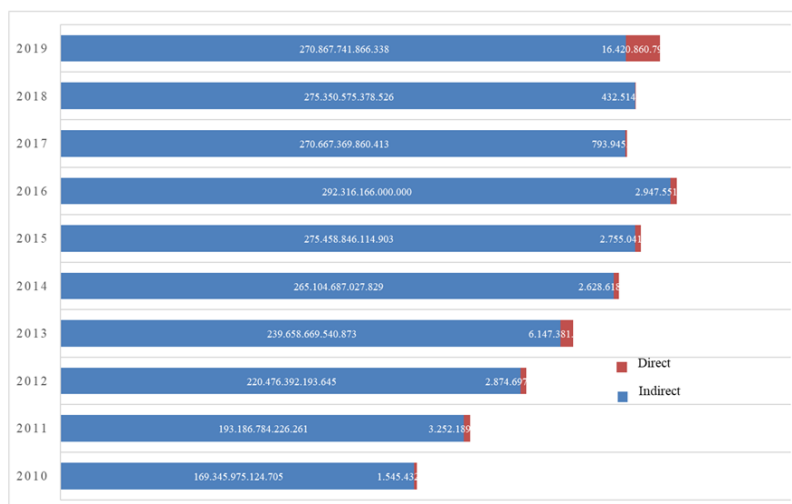
evidence to reject H0. H0 in this test is that personnel expenditure does not positively or significantly affect the regional economy. The personnel expenditure variable's $P > |t|$ value is 0.041 based on the test results. This value is smaller than the 5% significance level. The personnel expenditure variable has a positive coefficient of 7.947118. Based on this, H0 is rejected, so it can be concluded that H1 can be accepted, which means that personnel spending partially has a positive and significant effect on the regional economy.

This study's results align with several previous studies, such as research conducted by (Pusporini, 2019). The results show that personnel expenditure positively influenced GRDP in Central Java Province in 2017-2018. Prayogo (2019), in his research, found that employee expenditure affected the GRDP of regencies and cities in Central Java Province from 2012 to 2017. Research conducted by Deswanto et al. (2017), which examined regencies and cities in West Kalimantan Province from 2010 to 2015, also found that personnel expenditure had a positive and statistically significant effect on economic growth. Furthermore, Deswanto et al. (2017) in their research stated that the positive effect of personnel expenditure on the economy in West Kalimantan is supported by a good response from local producers and providers of goods and services who can meet the demand to provide the needs of personnel so that it will increase economic activity in the area.

Keynesian economic theory explains that regional spending can have implications for the economy in a region. Government expenditure in the form of personnel expenditure is channeled through salaries, honoraria, and others to increase the income received by employees. An increase in income will boost personal consumption, leading to higher demand for goods and services in a region. An increase in income followed by an increase in demand for goods will continue to run, which will have a multiplier effect on aggregate demand, ultimately increasing the GRDP of a region.

Based on data from the DJPK website, personnel expenditure in this research sample has an average budget proportion of around 45% of total regional expenditure. It is the highest proportion compared to expenditure on goods, services, and capital. The results of this study show that the coefficient of personnel expenditure is much smaller than that of goods and services expenditure. The results mean that the influence of personnel expenditure is still relatively smaller than that of goods and services expenditure. It shows that personnel expenditure has not optimally encouraged the economy in the regions.

Based on Permendagri No. 13 of 2006, personnel expenditure is divided into two groups: direct and indirect. Personnel expenditure in the direct expenditure group is budgeted for expenditures related to honorarium or wages in implementing local government programs and activities. In contrast, personnel expenditure in the indirect expenditure group is budgeted for expenditures related to salaries and allowances and other income provided to civil servants, including representation fees and allowances for leaders and members of the DPRD, as well as for regional heads and deputy regional heads.



Source: Processed data

Figure 3.
The Proportion of Personnel Expenditure from 2010 to 2019

Badrudin (2012) states that the government policy of setting a sizeable indirect expenditure budget cannot encourage the regional economy. Data on the realization of personnel expenditure of regency and city governments in Figure 3 shows that personnel expenditure from the indirect expenditure group is much more significant than the proportion of personnel expenditure from the direct expenditure group. The large portion of personnel expenditure in the indirect expenditure group may be a factor that causes the influence of personnel expenditure to remain relatively small on the regional economy.

In his research, Badrudin (2012) also mentions that the small effect of personnel expenditure on the economy may be due to personnel consumption by purchasing goods and services outside the regency and city where the personnel works. Fajerin (2018) states that personnel income is very likely to be spent outside the area where they work, even though the increase in personnel expenditure budget will not have an optimal impact on the area. Deswanto et al. (2017), in their research, explained that personnel expenditure affects GRDP if the income received by Local Government (Pemda) personnel is spent in the area. Therefore, personnel expenditure will not significantly influence the GRDP of a region if personnel spend their income outside the region. Local governments' efforts to manage personnel expenditure should be directed more towards the quality of personnel expenditure. Local governments can make efficient personnel expenditures through technology while still paying attention to its impact on both the economy and the internal performance of local governments.

The Effect of Goods and Services Expenditure on the Regional Economy

The second hypothesis (H2) is that goods and services expenditure positively and significantly affects the regional economy. This hypothesis assumes that spending on goods and services should positively and statistically significantly affect the regional economy. An increase in spending on goods and services will increase the value of GRDP positively and significantly. Testing this hypothesis aims to test whether there is sufficient evidence to reject H₀, whereas in testing this hypothesis, H₀, namely goods and services expenditure, does not have a positive or significant effect on the regional economy. Based on the test results, the goods and services expenditure variable has a $P > |t|$ value of 0.0000, smaller than the 5% significance level. The coefficient for the goods and services expenditure variable is 41.87655. Based on this, H₀ is rejected so that H₂ can be accepted. Therefore, the second hypothesis can be accepted, which means that goods and services expenditure partially has a positive and significant effect on the regional economy.

This study's results align with research by Ayu et al. (2020), which indicated that expenditures on goods and services influenced the GRDP of regencies and cities in South Sumatra from 2016 to 2018. Prayogo (2019) found that the expenditure on goods and services significantly impacted the GRDP of regencies and cities in Central Java Province from 2012 to 2017. Previous research that is also in line with the results of this study was conducted by Setiawan (2017), who found that spending on goods and services in regencies and cities in East Java from 2010 to 2014 had a significant effect on GRDP.

In the APBD, expenditure on goods and services is grouped into direct expenditure. Based on Permendagri Number 21 of 2011, the goods and services expenditure budget is used to procure goods and services directly related to local government programs or activities and have a helpful value of less than 12 months, including goods to be delivered or sold to the public or third parties. The regency and city government realizes the goods and services expenditure budget in the form of consumables, materials, office services, insurance premiums, motor vehicle maintenance, printing/procurement, house/building/warehouse/parking rental, mobility facilities rental, heavy equipment rental, office supplies and equipment rental, food and beverages, official clothes and attributes, work clothes, unique clothes and certain days, official travel, official travel to transfer duties and repatriation of personnel.

Pusporini (2019) states that consumers or the public will buy goods in their area without having to buy these needs from other areas if local producers can provide these goods and services. It will increase local economic activity, increasing the region's GRDP. The positive effect of goods and services expenditure on the regional economy indicates that the local government's demand for goods and services can still be met predominantly by the regency and city market (Hutabarat, 2013). The role of local goods and services providers must be improved to provide the goods and services the community needs, including local governments.

Micro, Small and Medium Enterprises (MSMEs) are the backbone of the economy in the regions in general (Elfindri et al., 2019). Based on data from the Ministry of Cooperatives and Small and Medium Enterprises's website (Kemenkop and UKM), the number of MSMEs in 2018 was around 62,922,617. This figure reached 99.9% of the total number of businesses operating in Indonesia. Data from the 2016 Economic Census by BPS shows that the dominating number of Micro and Small Enterprises (MSEs) are MSEs engaged in wholesale and retail trade, repair and maintenance of cars and motorcycles, provision of accommodation and provision of drinking food and processing industry where the industry is primarily a provider of needs related to spending on goods and services of local governments.

The development of MSMEs providing goods and services for local government needs is expected to be evenly distributed in each region. Local governments can play several roles in supporting the development of MSMEs in the regions: facilitative, educational, representative, and technical (Ondang et al., 2019). Local governments can provide facilities such as product promotion media, business equipment assistance, and other supporting facilities. In an educational role, local governments can provide business skills to help increase the productivity of business results. Local governments work with banks to provide soft loans and People's Business Credit (KUR) for business actors.

With the support of goods and services providers, expenditure incurred by local governments to purchase goods and services will have a multiplier effect on aggregate demand. It is because every IDR realized through expenditure on goods and services will increase demand for goods and services the local government needs. The increase in demand causes an increase in the production of goods and services, followed by an increase in additional income for producers/providers of goods and services. A person will tend to increase consumption if there is an increase in income (Mankiw, 2018). This economic activity will continue and have a domino effect on aggregate demand.

The Effect of Capital Expenditure on Regional Economy

The third hypothesis (H3) is that capital expenditure positively and significantly affects the regional economy. The third hypothesis explains that capital expenditure should positively and significantly affect the regional economy. Every IDR spent on capital expenditure will positively and significantly affect the regional economy. This hypothesis testing is carried out to test whether there is sufficient evidence to reject H_0 , which in this hypothesis testing H_0 , namely capital expenditure, does not have a positive or significant effect on the regional economy. The third hypothesis can be accepted if there is insufficient evidence to accept H_0 . Based on the test results, the $P > |t|$ value for the capital expenditure variable is 0.03, smaller than the 5% significance level. The coefficient for the capital expenditure variable is 7.47028. Based on this, there is sufficient evidence to reject H_0 , so H3 can be accepted, which means that capital expenditure partially has a positive and significant effect on the regional economy.

This study's findings are consistent with research by Deswanto et al. (2017), which demonstrated that capital expenditure positively and significantly impacted the economy (GRDP) of regencies and cities in West Kalimantan Province from 2010 to 2015. Furthermore, in Deswanto's research, the positive effect of capital expenditure on GRDP is supported by the existence of local producers/service providers who can meet the needs of local governments in the form of capital goods such as equipment and machinery, roads, bridges, buildings, and other infrastructures. Research by Lestari and Budhi (2014) also shows the same thing, that capital expenditure has a positive and significant effect on GRDP in regencies and cities in Bali Province. In their research, Lestari and Budhi mentioned that capital expenditure contributes to increasing GRDP through development spending. Silvia (2019) states that capital expenditure in the form of infrastructure spending, such as road construction, which can help smooth transportation in terms of logistics distribution, can provide a multiplier effect that can improve the regional economy.

Capital expenditures generally require high costs and have a long-term impact (DJP, 2018). According to Permendagri Number 13 of 2006, local governments use capital expenditures to purchase tangible fixed assets with more than twelve months of helpful value. These expenditures can be used to procure or purchase land, equipment and machinery, buildings and structures, roads, irrigation, networks, and other fixed assets. Similar to personnel expenditure and goods and services expenditure, government spending through capital expenditure will increase the demand for capital goods, followed by increased provider income. In addition, capital expenditure in the form of productive infrastructure

can provide economic of-scale benefits in the long run in the form of smooth logistics mobility, time and cost efficiency, and an increase in the scale of production. Nevertheless, the results of this study show that the coefficient of the capital expenditure variable is the smallest among the coefficients of the personnel expenditure variable and the goods and services expenditure variable. It means that the influence of capital expenditure on regency and city governments is still less than optimal compared to personnel expenditure and goods and services expenditure.

The National Planning Development Agency (BPP Nasional) explains that there are at least two stages in the contribution of local government capital expenditure to the regional economy. The first stage is through material expenditures and employment, and the second stage is through multipliers in the private sector that contribute to the economy in the long term. BPP Nasional further explains that problems may occur if material expenditure and labour are difficult to obtain in the region, so capital expenditure will flow outside the region. It causes suboptimal local government capital expenditure in its contribution to GRDP. Several studies have explained the possible causes of the suboptimal influence of capital expenditure on the regional economy. Badrudin (2012) states that capital expenditure is less than optimal in influencing the economy because capital expenditure is realized in unproductive sectors. The same thing is explained in Hakim's research (2020). The research shows that capital expenditures that are less targeted and not maximally utilized by local governments cause their influence to be not optimal on GRDP. In their research, Devarajan et al. (1996) stated that capital expenditures that have little effect on the economy are ordinary in developing countries. The government's misallocation of capital expenditure is causing budget issues.

Local governments can optimize capital expenditures by directing them to provide public services and improving connectivity infrastructure, technology, information and communication (ICT) infrastructure, agricultural technology, and other productive sectors. Nworji et al. (2012) stated that capital expenditures related to social and community services positively affect the economy. According to Nurudeen and Usman (2010), the government should increase capital expenditure in the communication and transportation sectors. Public facilities for the community provided by local governments will create cost efficiency. Reduced costs will increase income for the community, and private companies's profits will trigger sustainable economic activity. Road infrastructure development plays a role in stimulating the regional economy (Sumadiasa et al., 2016). Road infrastructure development will provide several economic stimulus benefits, such as accelerating logistics distribution, reducing costs, smooth transportation, opening access to tourism, attracting investors and opening up job opportunities for the community (Silvia, 2019).

CONCLUSION

Personnel expenditure has a positive impact on the regional economy. However, its contribution is relatively minor compared to goods and services expenditure, as evidenced by the smaller regression coefficient for personnel expenditure. In the long term (over four years), capital expenditure also positively influences the regional economy; however, its effect is not as robust as that of personnel expenditure and goods and services expenditure, indicated by its lower regression coefficient. Conversely, expenditures on goods and services contribute more to the regional economy than the other two categories. The more significant regression coefficient for goods and services expenditure underscores its significant role in driving regional economic growth by procuring consumable goods and services. This finding highlights the importance of effectively managing goods and services expenditure to optimize its positive impact on the regional economy.

Local governments must enhance the efficiency of personnel expenditure by leveraging information technology to support organizational performance and optimize human resources, all while prioritizing employee welfare. Furthermore, there is a need to strengthen oversight of expenditures on goods and services to prevent misuse or waste and to ensure that spending fosters local economic growth and enhances internal government performance. Additionally, evaluating capital expenditures is essential, focusing on productive sectors such as connectivity and ICT infrastructure, agricultural technology, and other public services that contribute to regional economic development.

Due to data limitations, this study focuses solely on independent variables, specifically personnel, goods and services, and capital expenditure. Future research is encouraged to incorporate additional relevant variables to better understand the factors influencing GRDP. The analysis employs a Fixed Effect Model, which may yield different results if alternative analytical methods are utilized.

Furthermore, this research applies a time lag of four years for capital expenditure, and the data spans from 2010 to 2019, utilizing a purposive sampling method to select districts and cities in Indonesia.

REFERENCES

- Ayu, M., Robiani, B., Yulianita, A., 2020. Pengaruh belanja pegawai, belanja barang, dan belanja modal terhadap Produk Domestik Regional Bruto (PDRB) di kabupaten/kota Provinsi Sumatera Selatan tahun 2016-2018. *Undergraduate thesis*, Sriwijaya University,
- Azwar, A., 2016. Peran alokatif pemerintah melalui pengadaan barang/jasa dan pengaruhnya terhadap perekonomian Indonesia. *Kajian Ekonomi dan Keuangan*, 20(2), 149-167.
- Badan Pusat Statistik (BPS). 2015. *Produk Domestik Regional Bruto Kabupaten/Kota di Indonesia 2010-2014*. accessed via the website <https://www.bps.go.id/publication/2015/12/01/52f02f071dbd59f971da2838/produk-domestik-regional-bruto-kabupaten-kota-di-indonesia-2010-2014.html>.
- Badan Pusat Statistik (BPS). 2016. *Sensus Ekonomi 2016*. accessed via the website: <https://se2016.bps.go.id/umkumb/index.php/site/index>.
- Badan Pusat Statistik (BPS). 2018. *Produk Domestik Regional Bruto Kabupaten/Kota di Indonesia 2013-2017*. accessed via the website <https://www.bps.go.id/publication/2018/10/05/89552064fb46e82d2b50468f/produk-domestik-regional-bruto-kabupaten-kota-di-indonesia-2013-2017.html>.
- Badan Pusat Statistik. 2020. *Produk Domestik Regional Bruto Kabupaten/Kota di Indonesia 2015-2019*. accessed via the website <https://www.bps.go.id/publication/2020/10/05/379d44be220c36557802b8f3/produk-domestik-regional-bruto-kabupaten-kota-di-indonesia-2015-2019.html>.
- Badrudin, R. 2012. Pengaruh Desentralisasi Fiskal terhadap Belanja Modal, Pertumbuhan Ekonomi, dan Kesejahteraan Masyarakat Kabupaten/Kota di Provinsi Jawa Tengah. *Doctoral Dissertation*, Universitas Airlangga
- Bank Indonesia. 2007. *Kajian Ekonomi Regional Provinsi Jawa Timur*.
- BPP Nasional. 2008. *Studi Evaluasi Dampak Pemekaran Daerah*. Jakarta: UNDP.
- Christia, A. M., Ispriyarso, B., 2019. Desentralisasi fiskal dan otonomi daerah di Indonesia. *Law Reform*, 15(1), 149-163.
- Deswanto, D. B., Ismail, A., Hendarmin, H., 2017. Pengaruh belanja daerah berdasarkan klasifikasi ekonomi terhadap pertumbuhan ekonomi dan kesejahteraan masyarakat di kabupaten/kota Provinsi Kalimantan Barat tahun 2010-2015. *Jurnal Ekonomi Bisnis Dan Kewirausahaan*, 6(3), 187.
- Devarajan, S., Swaroop, V., Zou, H. F., 1996. The composition of public expenditure and economic growth. *Journal of monetary economics*, 37(2), 313-344.
- Elfindri, Hendro, E., Zamzami. 2019. *Ekonomi Pembangunan Daerah*. Depok: Rajawali Pers.
- Fajerin, M. 2018. Tata kelola belanja modal dan belanja pegawai untuk peningkatan pertumbuhan ekonomi daerah dan indeks pembangunan manusia di Kabupaten Hulu Sungai Tengah tahun 2010-2016. *Jurnal Ilmiah Ekonomi Bisnis*, 4(3).
- Ghozali, I., Ratmono, D., 2017. *Analisis Multivariat dan Ekonometrika*. Semarang: Badan Penerbit Universitas Diponegoro.
- Gujarati, D. N., Porter, D. C., 2009. *Basic Econometrics* Fifth Edition. McGraw-Hill Education.
- Hakim, A., 2020. Analisis pengaruh investasi dan pengeluaran pemerintah terhadap produk domestik regional bruto Kabupaten Berau: analisis pengaruh investasi dan pengeluaran pemerintah terhadap produk domestik regional bruto Kabupaten Berau. *ECO-BUILD; Economy Bring Ultimate Information All About Development Journal*, 4(2), 12-24.
- Hidayat, A. V., Nalle, F. W., 2017. Analisis pengaruh belanja pemerintah, tenaga kerja, dan pendapatan asli daerah terhadap pertumbuhan ekonomi regional Provinsi Jawa Timur tahun 2010-2015. *Jurnal Ekonomi Pembangunan*, 15(1), 71-86.
- Hutabarat, P., 2013. Pengaruh Belanja Pegawai, Belanja Barang, Belanja Modal dan Jumlah Penduduk terhadap Pertumbuhan Ekonomi Daerah Kabupaten/Kota di Sumatera Utara. *Tesis*, Pascasarjana Universitas Sumatera Utara

- Lantu, Y. S. M., Koleangan, R. A., Rotinsulu, T. O., 2011. Pengaruh belanja pemerintah terhadap pertumbuhan ekonomi Dan pengentasan kemiskinan di Kota Bitung. *Jurnal Pembangunan dan Keuangan Daerah*, 19(2).
- Lestari, S. E., Budhi, K. S., 2014. Pengaruh PAD, belanja modal dan angkatan kerja terhadap PDRB per kabupaten/kota di Provinsi Bali. *E-Jurnal Ekonomi Pembangunan Universitas Udayana*, 3(12), 44495.
- Liu, L. C. H., Hsu, C. E., Younis, M. Z., 2008. The association between government expenditure and economic growth: Granger causality test of US data, 1947-2002. *Journal of Public Budgeting, Accounting & Financial Management*, 20(4), 439-452.
- Mankiw, N. G., 2018. *Principles of Economics* Eight Edition. Cengage Learning.
- Nurudeen, A., Usman, A., 2010. Government expenditure and economic growth in Nigeria, 1970-2008: A disaggregated analysis. *Business and economics journal*, 4(1), 1-11.
- Nworji, I. D., Okwu, A. T., Obiwuru, T. C., Nworji, L. O., 2012. Effects of public expenditure on economic growth in Nigeria: A disaggregated time series analysis. *International journal of management sciences and business research*, 1(7), 1-15.
- Ondang, C., Singkoh, F., Kumayas, N. 2019. Peranan pemerintah daerah dalam pemberdayaan Usaha Mikro Kecil Menengah (UMKM) di Kabupaten Minahasa (suatu studi di Dinas Koperasi dan UKM). *Jurnal Eksekutif*, 3(3).
- Permendagri Nomor 13 Tahun 2006 tentang Pedoman Pengelolaan Keuangan Daerah.
- Permendagri Nomor 21 Tahun 2011 tentang Perubahan Kedua atas Peraturan Menteri Dalam Negeri Nomor 13 Tahun 2006 tentang Pedoman Pengelolaan Keuangan Daerah. Berita Negara Republik Indonesia Tahun 2011 Nomor 310.
- Prayogo, P. A., 2019. Pengaruh Belanja Barang dan Jasa, Belanja Pegawai, dan Belanja Modal terhadap PDRB di Kabupaten dan Kota Provinsi Jawa Tengah Tahun 2012-2017. *Doctoral dissertation*, Universitas Pembangunan Nasional Veteran Yogyakarta,
- Pusporini, I. D. 2020. Analisis pengaruh anggaran pendapatan dan belanja daerah terhadap pertumbuhan ekonomi di provinsi Jawa Tengah. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, 9(06).
- Saputra, D., 2014. Analisis kemandirian dan efektivitas keuangan daerah pada kabupaten dan kota di Provinsi Sumatera Barat. *Jurnal Akuntansi*, 2(1),
- Setiawan, A., 2017. Analisis Pengeluaran Belanja Daerah terhadap PDRB Kabupaten/Kota di Provinsi Jawa Timur Tahun 2010-2014. *Other thesis*, University of Muhammadiyah Malang.
- Silvia, V., 2019. Pengaruh Pendapatan Asli Daerah, Dana Alokasi Umum, Dana Bagi Hasil, Dana Alokasi Khusus, dan Belanja Modal Terhadap Pertumbuhan Ekonomi Kabupaten/Kota di Indonesia. *Skripsi*, Politeknik Keuangan Negara STAN.
- Sugiyono, S. 2013. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Sugiyono, S. 2017. *Statistika untuk Penelitian*. Bandung: Alfabeta.
- Sumadiasa, I. K., Tisnawati, N. M., Wirathi, I. G. A. P., 2016. analisis pengaruh pembangunan infrastruktur jalan, listrik dan pma terhadap pertumbuhan pdrb provinsi bali tahun 1993-2014. *E-Jurnal Ekonomi Pembangunan Universitas Udayana*, 5(7).
- Widarjono, A., 2005. *Ekonometrika: Teori dan Aplikasi untuk Ekonomi dan Bisnis*. Yogyakarta: Ekonisia.