The Influence of Government Spending on Increasing Regional Competitiveness through Infrastructure, Economic Growth, and the Quality of Human Resources after the Implementation of Regional Autonomy in Indonesia

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Abstract: The implementation of regional autonomy in Indonesia has been regulated in Law No. 32 of 2004 concerning regional government and Law No. 33 of 2004 concerning financial balance between the central and regional governments. These two regulations indicate the support of human resources, equipment and financing that are synergized in an effort to increase regional added value, especially in facing global competition. This study aims to measure and analyze the effect of government spending on increasing regional competitiveness through infrastructure, economic growth, and the quality of human resources after regional autonomy has been implemented. The study used a recursive path analysis with a structural equation model (SEM) approach. The results showed that government expenditure did not directly influence the increase in regional competitiveness as indicated by the probability value (P-value 0.125 > 0.05), but was influenced positively and significantly through the intervening variable of the quality of human resources with an estimated value of (P-value 0.004 <0.05) and also influenced positively and significantly by the intervening variables of economic growth with estimated values (P-value 0.007 <0.05). Infrastructure as an intermediate variable directly does not significantly influence regional competitiveness.

Keywords: Government Expenditure, infrastructure, Human Development Index, Economic Growth, Regional Competitiveness

1. Background

Regional competitiveness is one aspect of the objective of implementing regional autonomy in accordance with Law No. 32 of 2004 and Law-Shrimp No.23 of 2014. The successful implementation of development to achieve increased competitiveness is determined by how much government intervention is in the form of development expenditure at the provincial and district / city levels where regional autonomy is held (Shah: 2007, Rosen & Gayer, 2010). In theory decentralization is believed to be able to increase efficiency in public services (Musgrave 1973, Oates 1972, 1993) and is able to create added value for the region through factors that support each other holistically (Ahmad et. al 2005, Oates 1993, and Musgrave: 1973). In addition, it is intended to further improve the provision of more efficient services (Steffensen: 2007).

And in practice so that local governments can manage their finances effectively, efficiently and accountably to finance government activities and tasks, and create a more transparent decision-making process (Bird, Vaillancourt: 2000, Mc. Mullen: 2000, Sidik: 2002, Bird: 2003). The role of decentralization is that public services will be more efficient when implemented at the lowest level closest to the community because the local government is very understanding of the needs of the community, in this case the local government is considered more efficient in using public funds and competition between regions will increase innovation (Tiibout: 1956, Oates: 1972, Tresch: 1981, Breton: 1996), Tresch (1981), Aronson (1985), and Stiglitz (1988) have theoretical reasons that the most frequently stated about the importance of decentralization is to maintain allocation efficiency when dealing with diverse preferences for local public goods. Implementation of regional autonomy (decentralization) is a universal phenomenon in countries that adhere to a unitary system.

In Indonesia, this policy becomes a tool (tolls) to measure inequality or progress of an autonomous region after being given extensive authority to regulate and manage the area (Abimanyu and Megantara, 2009). This is also a comparative tool after an empirically centralized administration which has proven to lead to a very dominant development gap between the center and the regions. The public service gap that can be measured from the number of disadvantaged villages and the very lagging villages indicates poor access to infrastructure.
Table 1: Distribution of Disadvantaged and Very Underdeveloped Regions by Regions in Indonesia

<table>
<thead>
<tr>
<th>No</th>
<th>Regional</th>
<th>Number of Village</th>
<th>Underdeveloped Village</th>
<th>Village is Very Left Behind</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sumatra</td>
<td>22.056</td>
<td>12.482</td>
<td>56,59</td>
<td>8.241</td>
</tr>
<tr>
<td>2</td>
<td>Jawa</td>
<td>22.458</td>
<td>15.087</td>
<td>67,18</td>
<td>806</td>
</tr>
<tr>
<td>3</td>
<td>Kalimantan</td>
<td>6.382</td>
<td>3.063</td>
<td>47,99</td>
<td>1.702</td>
</tr>
<tr>
<td>4</td>
<td>Sulawesi</td>
<td>8.233</td>
<td>4.389</td>
<td>53,31</td>
<td>1.213</td>
</tr>
<tr>
<td>5</td>
<td>Nusa Tenggara &amp; Bali</td>
<td>3.599</td>
<td>2.277</td>
<td>63,27</td>
<td>424</td>
</tr>
<tr>
<td>6</td>
<td>Maluku</td>
<td>1.958</td>
<td>782</td>
<td>39,94</td>
<td>833</td>
</tr>
<tr>
<td>7</td>
<td>Papua</td>
<td>5.204</td>
<td>1.002</td>
<td>19,25</td>
<td>4.049</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>69.890</td>
<td>39.082</td>
<td>55,92</td>
<td>17.268</td>
</tr>
</tbody>
</table>

Source: Ministry of Home Affairs and Villages left Behind 2014

Based on the data in Table 1, the number of disadvantaged villages in the 2013-present time bracket shows a number that is still quite high in all regions given regional autonomy so that this phenomenon becomes empirical evidence of low competitiveness between regions. Based on the theoretical description and the objectives of the decentralization policy manifested in the form of government expenditure, there is a contradiction with the phenomenon of inequality in the form of low regional competitiveness during the implementation of regional autonomy, which is the motivation for this research.

Table 2: Trend of Infrastructure Spending After Regional Autonomy in Indonesia 2010-2017 (Trillions of Rupiah)

<table>
<thead>
<tr>
<th>Budget Type</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastruktur</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td>400</td>
<td>450</td>
</tr>
<tr>
<td>Budget Growth</td>
<td>8.05</td>
<td>10.05</td>
<td>12.15</td>
<td>14.25</td>
<td>16.05</td>
<td>18.05</td>
<td>20.15</td>
<td>22</td>
</tr>
</tbody>
</table>

Source: Bappenas RI, 2017

From Table 2, the development of the infrastructure budget allocated by the central government from 2010-2017 from APBN expenditure continues to increase with a value of 450 Trillion, this value is equivalent to 18.6% of total expenditure allocated by the government, this increase indicates that government expenditure in the context of increasing competitiveness has experienced growth from year to year.

Table 3: GDP Growth Expenditure Side 2010-2017

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pengeluaran Konsumsi RT</td>
<td>56.7</td>
<td>5.05</td>
<td>5.49</td>
<td>5.43</td>
<td>5.16</td>
<td>4.96</td>
<td>5.01</td>
<td>4.95</td>
</tr>
<tr>
<td>Pengeluaran Konsumsi LNPRT</td>
<td>0</td>
<td>5.54</td>
<td>6.68</td>
<td>8.18</td>
<td>12.19</td>
<td>-0.62</td>
<td>6.64</td>
<td>6.91</td>
</tr>
<tr>
<td>Pengeluaran Konsumsi Pemerintah</td>
<td>9.1</td>
<td>5.52</td>
<td>4.53</td>
<td>6.75</td>
<td>1.16</td>
<td>5.31</td>
<td>-0.14</td>
<td>2.14</td>
</tr>
<tr>
<td>Pembentukan Modal Tetap Bruto</td>
<td>32.2</td>
<td>8.86</td>
<td>9.13</td>
<td>5.01</td>
<td>4.57</td>
<td>5.01</td>
<td>4.47</td>
<td>6.15</td>
</tr>
<tr>
<td>Ekspor Barang dan jasa</td>
<td>24.6</td>
<td>14.77</td>
<td>1.61</td>
<td>4.17</td>
<td>1</td>
<td>-2.19</td>
<td>-1.57</td>
<td>9.09</td>
</tr>
<tr>
<td>(-) Impor Barang dan jasa</td>
<td>23.15</td>
<td>0.15</td>
<td>1.71</td>
<td>4.49</td>
<td>1.24</td>
<td>2.19</td>
<td>-6.25</td>
<td>-2.45</td>
</tr>
<tr>
<td>PDB</td>
<td>100</td>
<td>6.17</td>
<td>6.03</td>
<td>5.56</td>
<td>5.02</td>
<td>4.88</td>
<td>5.03</td>
<td>5.07</td>
</tr>
</tbody>
</table>

Source: Central Bureau of Indonesia 2018

Based on Table 3, Indonesia’s economic growth during 2010 - 2017 fluctuated and declined until 2017, this is an indication that Indonesia’s competitiveness from the economic sector is still relatively low, even though government spending continues to increase.

Table 4: Indonesian Human Development Index According to Component 2010 - 2017

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Usia Harapan Hidup</td>
<td>Tahun</td>
<td>69.81</td>
<td>70.01</td>
<td>70.20</td>
<td>70.40</td>
<td>70.59</td>
<td>70.78</td>
<td>70.9</td>
<td>71.06</td>
</tr>
<tr>
<td>Harapan Lama Sekolah</td>
<td>Tahun</td>
<td>11.29</td>
<td>11.44</td>
<td>11.68</td>
<td>12.1</td>
<td>12.39</td>
<td>12.55</td>
<td>12.72</td>
<td>12.85</td>
</tr>
<tr>
<td>Rata-rata Lama Sekolah</td>
<td>Tahun</td>
<td>7.46</td>
<td>7.52</td>
<td>7.59</td>
<td>7.61</td>
<td>7.73</td>
<td>7.84</td>
<td>7.95</td>
<td>8.1</td>
</tr>
<tr>
<td>1 P M</td>
<td>66.53</td>
<td>67.09</td>
<td>67.7</td>
<td>68.31</td>
<td>68.9</td>
<td>69.55</td>
<td>70.18</td>
<td>70.81</td>
<td></td>
</tr>
<tr>
<td>Growth IPM</td>
<td>0.84</td>
<td>0.90</td>
<td>0.91</td>
<td>0.87</td>
<td>0.93</td>
<td>0.91</td>
<td>0.90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Central Bureau of Statistic 2010-2017
Based on table 4 above, the quality aspect of human resources seems to increase over time with an average growth of 0.89. This index is a composite value that combines the quality of health, quality of education, and economy, and theoretically if there is an increase in quality human resources, more productive and innovation will have implications for increasing competitiveness for a region / country. From the aspect of competitiveness, government expenditure intended to develop the quality of infrastructure, human resources, and economic growth is one of the strategies that in the long run are driving the acceleration of economic growth and increasing regional competitiveness in facing regional and international economic competition.

2. Literature Review

A. Intergovernmental Fiscal Transfer

Intergovernmental transfers are a common phenomenon that occurs in all countries, in general the classification of intergovernmental transfers is divided into two types (Rosen & Gayer: 2010) namely 1) conditional grants namely assistance provided but management is regulated by the central government 2) transfers that unconditional grants provided by the central government and their management regulated by the local government and supervised by the central government.

Conditional transfers in the form of Matching Grants are given in accordance with the requirements of the local government, and are set on certain programs / projects that have an effect on 1) income (Income effect) 2) influence the price and substitution effect. And conditional transfers in the form of Matching Closed Ended Grants that place a limit on how much the central government will contribute, and Nonmatching Grants are given as financing in the provision of public goods (Rosen & Gayer, 2010).

Shah, 2007 classifies transfers into two categories, namely: 1) General Purpose Transfer (Unconditional) This assistance has full flexibility in utilizing transfer funds in accordance with regional priorities and 2) Specific-Purpose Transfer (Conditional or earmarked) is given as assistance for programs considered important by the central government but not considered important by the regional government.

The impact of transfer on the decentralized policy system will increase local government spending which is greater than the revenue itself (Turnbull: 1998, Haryo: 2004, Gorodnichenko: 2001), and on the other hand will increase the emergence of fiscal competition (Soft Budget Constraint, and Federal Insurance and Moral Hazard Problem. In fiscal competition in the decentralization policy system will increase government accountability, but will also create negative externalities that affect the level and pattern of economic activity (Oates: 2005, Gamkhar & Shah 2007)

B. Government Expenditure

Boediono (1999) explains that government expenditure in the real sense can be used as an indicator of the magnitude of government activities financed by government spending. The study conducted in Indonesia by (Skoufias et. Al. 2011) states that expenditures spent by local governments in Indonesia are generally higher in general expenditures, but from observed experience shows that there is no relationship between one expenditure and an increase in public services (Huther et.al: 1997). Furthermore, according to Huther et al. (1997) that this does not mean that increased financial support for public services is useless, because finance is very important. Glynn (1993) also mentions that financial support does not have to be seen as a form of increasing the amount of funds or (income) for the region but more important is how to ensure accountability and utilization of existing funds. Policy and authority in expenditure in the form of infrastructure development (infrastructure) is a policy that can increase regional economic growth because it has a multiplier impact on demand for production in the economy.

Research by Alexiou (2009) and Rahayu (2004) states that government expenditure in the form of public investment has a positive and significant impact on economic growth, this becomes one of the important indicators for the success of economic development in a country that describes the increase in goods and services that have been produced as an important requirement in the development process.

In terms of government expenditure in the form of physical investment, Todaro (2003) also explained that increasing physical investment and human resources that can increase productivity are the main sources of development and economic growth, explained Mankiw (2007) as a supporter of Todaro's argument by mentioning expenditure the government for the purchase of goods and services for the fulfillment of public services is one component that forms GDP which will trigger the exchange of output of goods and services in the economy.

Musgrave and Rostow quoted from Mangkusubroto (1998) develop a development model that is related to government expenditure, and connects the development of government expenditure with the stages of economic development. The initial stage of economic development requires large state expenditures for government investment, especially in the provision of infrastructure for public facilities and infrastructure such as education, health, and transportation and at the intermediate stage the development of investment economy is still needed to achieve economic growth. the later stages of economic development, government spending is still needed to improve people's welfare.

C. Infrastructure

According to Grigg (1988) infrastructure is a physical system that provides transportation, irrigation, drainage, buildings and other public facilities, which are needed to
meet basic human needs both social needs and economic needs. In economics infrastructure is a manifestation of public capital formed from investments made by the government. Infrastructure in this study includes roads, bridges, and sewer systems (Mankiw, 2003). The important role of infrastructure becomes a stimulant for economic growth in a region. With infrastructure, trade and investment activities will continue to increase, resulting in a positive impact on improving regional competitiveness for the better (Frost and Moner: 2005, Choe et al: 2011, Brians: 2011).

Infrastructure as a form of expenditure that will increase the effective demand of the entire community, however, to grow the economy, new investments are needed as capital enhancing stocks (Todaro 2006: 96, Harrod and Domar). Developmental disparities in several developed and developing regions can be influenced by factors including the problem of access to infrastructure (Williamson 1965, Hu: 2002). The availability of infrastructure has an impact on the social system and economic system in the community. So infrastructure needs to be understood as the basics in taking policies (J.Kodoatie, 2005). Mankiw (2003) states that workers will be more productive if they have the tools to work. The equipment and infrastructure used to produce goods and services are called physical capital. The same is explained in Todaro (2006) that the level of availability of infrastructure in a country is an important and decisive factor for the rate of speed and expansion of economic development. Infrastructure is a forum to support activities in one space.

Lin (1994) explains that a high level of development can be achieved through government spending at a high level as well. So that economic development becomes multiplied compared to the influence given from the development of infrastructure by the community (self- help) or the private sector (private). But Barro (1990) also emphasized that infrastructure development by the government had an effect depending on the type of investment.

Infrastructure is the driving force for economic growth, inadequate access to infrastructure is one of the obstacles to faster economic growth (Ndulu et al: 2005), (Ramirez and Esfahani: 1999). Besides access to infrastructure as a form of physical facilities developed or needed by public agencies for government functions such as water supply, electricity, transportation, and other services to facilitate economic and social goals (Stone in Kodoatie (2003 ) Weak systems and access to infrastructure will encourage low economic growth (Grigg in Kodoatie (2003), World Bank (1994), (Aschauer: 1989), (Gic: 2002).

D. Economic Growth

Factors that also influence the increase in regional competitiveness are economic growth (Kitson et al: 2004, Huggins: 2014). Economic growth has a positive and negative influence on increasing regional competitiveness (Widjaja: 1997, Sjafirzal: 1997). Economic changes include static or declining growth, a decline is a negative change while economic growth is a positive change.

Robert Solow and Trevor W. Swan (1987) in Lincolin (2010: 88) focus their studies and thoughts on three fields of study, namely employment, economic growth, and capital theory. The main idea in his theory states that economic growth depends on the availability of factors of production (population, labor, and capital accumulation) and the level of technological progress (technological progress).

The main idea of endogenous growth theory explains the factors that influence the process of economic growth that comes from the endogenous economic system itself. Technological progress is considered as one of the things that is considered endogenous, where economic growth is the result of the decisions of economic actors in investing in science, and the understanding of capital here is considered more broadly not only as physical capital but also includes human capital (Paul M. Romer in Lincolin 2010: 91)

Furthermore, this theory explains the main factors that cause differences in the level of per capita income between countries, which is due to differences in the mechanism of knowledge transfer, the investment capacity of physical capital, human capital, and infrastructure. Robert E. Lucas: 1998 in Lincolin 2010: 91) also emphasizes the importance of human capital in development. Meanwhile (Mankiew, Romer and Weil: 1992) include endogenous technology and human capital in addition to physical capital as a determinant of economic growth.

E. Human Resources

Theoretically, the low quality of human resources will cause low productivity and competitiveness in competing and become a big challenge for the government, especially in areas that are left behind and isolated with very limited access to infrastructure. (Achmad: 2012) in research related to regional competitiveness mention three factors that influence regional / regional competitiveness, namely HR, infrastructure, and institutions (Kitson et al: 2004).

Effective human resources are necessary conditions for increasing regional competitiveness as well as Harbison's economic growth (Todaro: 1995) stating operationally efforts to improve the quality of human resources are carried out in various sectors to accelerate economic growth and reduce the poverty gap (Rahardjo A: 2008 in Lonni, Tahir, and P. Uppun: 2013).

Human resources are internal factors that play a role in people's income, increasing people's income will encourage purchasing power so that economic productivity will increase, HR has a role as a factor of production. In his theory Solow argues that quality human resources, especially in the fields of education, health and economics, are needed in the process of growth and development. But as with other production factors human resources have limitations so that it impacts on economic growth and development disparity (Sonny: 2003), and one of the important determinants in the process of economic growth is quality human capital (Robby SA: 2006)
Schumpeter in Sukirno, 2000, emphasizes the importance of the role of entrepreneurs in creating competitiveness through economic growth and innovation in economic activities. According to Lange (1954) at the micro level, companies will face technological certainty and uncertainty when this innovation will emerge in the form of change production functions, increased use of the number of inputs and marginal productivity, and increased profits that can be obtained. Mc. Cleland (1984) with the concept of n-Ach (need for Achievement) he mentions that encouraging the process of economic growth means forming human entrepreneurs through the process of individual education.

F. Competitiveness Theory

Understanding of competitiveness began to develop after Porter (1990) defined national competitiveness. Porter (1990) defines national competitiveness as: "outcomes of a country's ability to innovate in order to achieve, or maintain a favorable position compared to other countries in a number of key sectors." Explicitly, Porter (1990) states that the concept of power competitiveness applied at the national level is nothing but "productivity" defined as the value of output produced by labor.

The International Institute for Management Development (IMD) with its publication "World Competitiveness Yearbook" defines national competitiveness as "the ability of a country to create added value in order to increase national wealth by managing assets and processes, attractiveness and aggressiveness, globality and proximity, and by integrating these relationships into an economic and social model. "From the various meanings of competitiveness above, it can be concluded that there is no consensus that expressly defines competitiveness. However, almost all experts have a common view on what must be done in order to improve competitiveness (Sachs, et. Al. 2000 in Abdullah et al, 2002).

Martin and Tyler (2003) provide an argument why a region must have competitiveness, which is expected to create (1) investment to attract the entry of foreign capital, private capital, and public capital (2) to workforce by encouraging skilled and creative workforce and provide a domestic labor market, (3) for technology, by attracting innovation activities and transfer of knowledge (Barro: 1990, Todaro & Smith: 2003, Sala-i-Martin: 2004).

3. Research and Methodology

This study uses path analysis with a structural equation model approach to analyze the effect of exogenous variable government expenditure (X) on regional competitiveness endogenous variables (Y4), through intervening infrastructure variables (Y1), economic growth (Y3), and human resources (Y2) The relationship of influence between variables can then be shown in the following figure 1:

![Figure 1](image)

**Figure 1**

Effects of Government Expenditures on Increasing Regional Competitiveness through Infrastructure, Human Resource Quality and Economic Growth

Based on the relationship model between variables that have been formed, functional mathematical equations, and the regression model according to the analysis model can simultaneously write as follows:

\[ Y_1 = f(X, \mu_1) \]  \(1\)

\[ Y_2 = f(X, \mu_2) \]  \(2\)

\[ Y_3 = f(Y_1, Y_2, X, \mu_3) \]  \(3\)

\[ Y_4 = f(Y_1, Y_2, Y_3, X, \mu_4) \]  \(4\)

Where:

Y₁ = Infrastructure
Y₂ = Human Development Index
Y₃ = Economic Growth
\[ Y_4 = \text{Regional Competitiveness} \]
\[ X = \text{Government Expenditure} \]
\[ \mu_1 - \mu_4 = \text{Error term} \]

Equations (1-4) are then substituted to the structural regression equation model as follows:

\[ y_1 = e^{00} + \mu_1X^{a1} \]  (5)
\[ y_2 = e^{00} + \mu_2X^{b1} \]  (6)
\[ y_3 = e^{00} + \mu_3X^{\gamma1} + \gamma_1Y_2^{a2} + \gamma_2Y_2^{c2} \]  (7)
\[ y_4 = e^{00} + \mu_4X^{d1} + \gamma_1Y_2^{a2} + \gamma_2Y_2^{c2} + \gamma_3Y_3^{d3} \]  (8)

Where:
\[ a_0, b_0, \gamma_0, \lambda_0 \] are constants, \[ a_1, b_1, \gamma_1-\gamma_3 \] and \[ \lambda_1-\lambda_4 \] are estimated parameters, \( \mu_1-\mu_4 \) is an error term. The functional reduce form equation with the simultaneous equation model is as follows:

\[ Y_1 = \alpha_0 + \alpha_1X + \mu_1 \]  (9)
\[ Y_2 = \beta_0 + \beta_1X + \mu_2 \]  (10)
\[ Y_3 = \lambda_0 + \lambda_1X + \mu_3 \]  (11)
\[ Y_4 = \delta_0 + \delta_1X + \mu_4 \]  (12)

Where:
\[ \alpha_0, \alpha_1, \beta_1, \lambda_1-\lambda_4 = U_1 \]
\[ \beta_0, \beta_1, \mu_1-\mu_4 = U_2 \]

Table 5: Results of Estimates of Influence & Direction of Relations Between Exogenous Variables Government Expenditures (X) Against Intervening Infrastructure Variables (Y1), Human Resources (Y2), Economic Growth (Y3), and Regional Competitiveness (Y4)

<table>
<thead>
<tr>
<th>Influence</th>
<th>Estimate</th>
<th>Probability</th>
<th>SE</th>
<th>CR</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>X ( \rightarrow ) Y1</td>
<td>-0.020</td>
<td>0.785</td>
<td>0.073</td>
<td>0.272</td>
<td></td>
</tr>
<tr>
<td>X ( \rightarrow ) Y2</td>
<td>-0.012</td>
<td>0.563</td>
<td>0.023</td>
<td>0.578</td>
<td></td>
</tr>
<tr>
<td>X ( \rightarrow ) Y3</td>
<td>-2.229</td>
<td>0.125</td>
<td>1.425</td>
<td>1.535</td>
<td></td>
</tr>
<tr>
<td>Y1 ( \rightarrow ) Y2</td>
<td>-2.000</td>
<td>0.187</td>
<td>1.517</td>
<td>1.318</td>
<td></td>
</tr>
<tr>
<td>Y1 ( \rightarrow ) Y3</td>
<td>0.006</td>
<td>0.651</td>
<td>0.013</td>
<td>0.453</td>
<td></td>
</tr>
<tr>
<td>Y2 ( \rightarrow ) Y3</td>
<td>29.978</td>
<td>4.999</td>
<td>5.996</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Y2 ( \rightarrow ) Y4</td>
<td>-119</td>
<td>0.004</td>
<td>0.041</td>
<td>-2.907</td>
<td>*</td>
</tr>
<tr>
<td>Y4 ( \rightarrow ) Y2</td>
<td>-24.648</td>
<td>0.007</td>
<td>9.190</td>
<td>-2.682</td>
<td>*</td>
</tr>
</tbody>
</table>

Kriteria \( \alpha < 0.05 \); * Signifikan
Source: Output AMOS 24

From table 5 above there are 9 directions of relations and influence of variables, and found 3 (three) influences between variables that are significant with (P <0.05). Effect of the quality of human resources (Y2) towards increasing regional competitiveness (Y4), the effect of the quality of human resources (Y2) on economic growth (Y3) with a significance value (P-value 0.004 <0.05), and the effect of economic growth (Y3) positively and significantly affect the increase in regional competitiveness (Y4) with the estimated results of (P-value 0.007 <0.05).

Table 6: Value of Influence of Relations Between Variables Directly and Indirectly

<table>
<thead>
<tr>
<th>Estimate</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>X ( \rightarrow ) Y1</td>
<td>-2.229</td>
<td>-0.020</td>
</tr>
<tr>
<td>Via Y1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Via Y2</td>
<td>-0.013</td>
<td></td>
</tr>
<tr>
<td>Via Y3</td>
<td>-0.012</td>
<td></td>
</tr>
<tr>
<td>Y2 ( \rightarrow ) Y3</td>
<td>29.978</td>
<td>4.999</td>
</tr>
<tr>
<td>Y2 ( \rightarrow ) Y4</td>
<td>-24.648</td>
<td>9.190</td>
</tr>
</tbody>
</table>

Source: Output AMOS
The linear regression estimation results of the effect of government expenditure on regional competitiveness (Y4) directly, and indirectly through infrastructure variables (Y1), human resource quality (HDI) (Y2), and economic growth (Y3) can then be described as follows:

\[ Y_4 = \beta_0 + \beta_1 X + \varepsilon \]

where \( X \) is government expenditure, \( Y_4 \) is regional competitiveness, and \( \varepsilon \) is the error term.

The estimation results of path coefficient values directly influence exogenous variables of government expenditure (X) on endogenous variables of regional competitiveness (Y4) and indirect effects through intervening infrastructure variables (Y1), human development index (Y2), and economic growth (Y3)

Based on the estimation results in Figure 2, it shows that government expenditure (X) in the form of indirect expenditure for provinces in Indonesia does not directly affect the increase in regional competitiveness (Y4) and the relationship shown is negative with an estimated value of -2.229. However, an increase in regional competitiveness (Y4) as a result of government spending is implemented through infrastructure development (Y1). The estimated estimated impact of government spending through infrastructure is -2.000.

In addition to infrastructure the implications of increasing regional competitiveness can be done through improving the quality of human resources (Y2) the estimated value of government spending on regional competitiveness of 29,978 which shows a positive but not significant direction, while the implications of government spending through improving the quality of human resources show value estimate of -0.013.

Furthermore, government expenditure to encourage increased regional competitiveness can be done through optimizing economic growth (Y3). The estimation results of the impact of government spending to encourage increased regional competitiveness through economic growth obtained an estimated value of -24,648 in a negative direction but the effect is significant, this indicates that the implications of government spending will directly affect economic growth even though the relationship is negative but significant effect on increased competitiveness (P-value 0.007 <0.05) with an estimated value of -0.012, and indirectly affects economic growth through the infrastructure development path (Y1) with an estimated value of 0.006 and through improving the quality of human resources (Y2) with estimated value of -0.119.

5. Conclusion

Government expenditure in the form of development spending aims to advance the region so that regions have the ability to generate high income and employment opportunities by remaining open to domestic and international competition. The increase in government expenditure in Indonesia directly does not have a significant effect on increasing added value (regional competitiveness) but indirectly has an effect through improving infrastructure both quality and quantity, and through improving the quality of human resources (HDI) and through increasing economic growth. The implications of these findings are in line with the results of research and research results of Huther et al. (1997). And supports the theory of Todaro (2003), and Musgrave (1973).

Reference


Lincolin Arsyad 2010, Ekonomi Pembangunan Edisi 5 UPPN STIM YKPN.


Peraturan Pemerintah Republik Indonesia Nomor.55 Tahun 2005 Tentang Dana Perimbangan.


[61] Undang-Undang Republik Indonesia No. 32 Tahun 2004 Tentang Pemerintahan Daerah


[63] Undang-Undang Republik Indonesia No. 32 Tahun 2014 Tentang Pemerintahan Daerah.

[64] Whidiarso W. 2011 Menghitung Signifikansi Peranan tidak langsung program AMOS at http://Wahyupsy.blog.ugm.ac.id