The effect of tax ratio and good government governance on economic growth

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Abstract

The purpose of this study is to investigate the effect of tax ratio and good government governance on economic growth via comparative quantitative research methods. As a result, all elements of government such as government effectiveness, regulatory quality, rule of law, control of corruption and taxes ratio effect on economic growth. In conclusion, to promote economic growth, in addition to reforming the taxation sector, the government must implement good government governance by providing the best service to the community, eradicating corruption, enforcing rules and regulations, creating rules and legislation of good quality, fair and consistently run.

Keywords: Good government governance, tax ratio.

El efecto del coeficiente fiscal y la buena gobernanza gubernamental sobre el crecimiento económico

Resumen

El propósito de este estudio es investigar el efecto de la proporción impositiva y la buena gobernanza gubernamental en el crecimiento económico a través de métodos de investigación cuantitativa comparativa. Como resultado, todos los elementos del
gobierno, como la efectividad del gobierno, la calidad regulatoria, el estado de derecho, el control de la corrupción y el efecto de la tasa de impuestos sobre el crecimiento económico. En conclusión, para promover el crecimiento económico, además de reformar el sector tributario, el gobierno debe implementar un buen gobierno gubernamental al brindar el mejor servicio a la comunidad, erradicar la corrupción, hacer cumplir las normas y reglamentos, crear normas y leyes de buena calidad, justas y correr consistentemente

**Palabras clave:** Buen gobierno de gobierno, ratio impositivo.

1. INTRODUCTION

One measure of economic performance is economic growth that has most been analyzed from macroeconomic side such as investment, inflation, interest rates, employment that are all quantitative but not many who observe it in terms of good government governance (GGG). Good Government Governance becomes important and has even become one of the goals of the Millennium Development Goals (MDGs). Even, GGG is also the basis for donor considerations when it comes to lending. According to Widodo, GGG can facilitate a more efficient market mechanism that can spur economic growth. According to the World Bank, Good Government Governance is the ability to provide social services to build human capital, provide physical, economic or management infrastructure within the framework of governance to achieve welfare.

ASEAN is now one of the strengths of new economic growth after the economies of America, Europe, and China began to decline. ASEAN was formed for the purpose of promoting mutual economic
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Currently, ASEAN has 11 member countries which have fluctuating economic growth. ASEAN countries practice good governance to encourage economic growth to catch up and realize a new economic axis. Several studies have shown that some elements of governance have an effect on the performance of the economy. According to Rafayet et al (2017), government effectiveness has a positive impact on economic growth, through improving the quality of public services. But Edy finds the opposite result, that government effectiveness has no effect on economic growth, because the better and effective quality of public services, will increase state expenditure, burden the public through tax increases, and ultimately will hamper the rate of economic growth through reduced power buy. In addition to government effectiveness and regulatory quality also affects economic growth. Regulatory quality is the government's ability to formulate and implement policies and regulations and promote regional development. Huynh and Jachochávez (2009) research find different things where regulatory quality has no effect on economic growth. Rule of law is an important indicator in creating good governance so that there is legal certainty for both government and society.

When all agents are obedient to the law, consistently running the contract, carrying unconditional duties and responsibilities will create a conducive climate for investing, which is the source of capital formation. Rule of law is able to guarantee a clean and well-run government so that it can bring a broad impact on economic progress and increase the rate of economic growth. According to Resnick and Birner (2006), the rule of law has a positive influence on economic
growth. Huynh and Jachochávez (2009) state that control of corruption is an important part of governance and has a significant impact on economic growth through market efficiency, efficiency in production costs, transparent, measurable. Research from Aidt et al. (2008) found that in countries with low institutional quality, corruption is high so as to reduce economic growth, whereas when institutional quality is high, economic growth increases. Economic growth requires financing and one potential source of state finance is taxes. Each country is currently intensively reforming taxation to increase state revenues. Various tax reform policies are implemented by several countries such as improving incentive system, computerization, tax holiday, reducing leakage. This policy is expected to have a positive impact on the long-term economy. However, excessive taxation will undermine people's purchasing power and ultimately reduce economic growth (Gupta, 2007).

1.1. Research Purposes

This study aims to investigate the influence of tax ratios and elements of good government governance represented by government effectiveness, rule of law, quality of law and control of corruption on economic growth on economic growth in ASEAN countries (Lumban, 2016).
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2. LITERATURE REVIEW

According to Keynes's Theory of Economic Growth, Keynes suggested that the government intervene in stabilizing the economy. If poor people are given some money, they will tend to spend it instead of saving it that will boost economic growth. According to endogenous growth theory, economic growth is a process that comes from within a system. Tax ratio is the ratio between the amount of tax revenue compared with the Gross Domestic Product (GDP) of a country in percent. Tax ratios indicate the extent to which the government's ability to collect tax revenues or reabsorb the gross domestic product of the community in the form of taxes. The higher the tax ratio of a country, the better the state tax collection performance (Djankov et al., 2006).

Good government governance is when all elements of government move synergistically, do not clash together, gain the support of the people, and are free of anarchist movements that can hamper the process and pace of development. According to UNDP, good government governance has six principles, namely legitimacy, rights of opinion, transparency and accountability, performance, and justice. In order to realize good government governance, a method of measuring its capacity is often called the Good Governance Index (IGG) measurement that requires participation, transparency, accountability, and rule of law. Whereas, 6 indicators made by World Bank are control of corruption, government effectiveness, political
stability and absence of violence, regulatory quality, rule of law, dan voice and accountability.

Government Effectiveness reflects the perception of the quality of public services, the quality of civil service and the degree of independence of political pressure, the quality of policy formulation and implementation, and the credibility of the government's commitment to the policy. Regulatory Quality reflects the quality of regulation capturing the perceptions of the government's ability to formulate and implement policies and regulations that both allow and promote private sector development. The Rule of Law reflects the extent to which agents have confidence and adhere to the rules of society and in particular the quality rules of contract enforcement, property rights, police, and courts, as well as the possibility of crime and violence. Control of Corruption measures the extent to which the strength and effectiveness of policy and institutional frameworks to prevent and combat corruption (Ademola, 2009; Pradhan & Sanyal, 2011).

3. METHODOLOGY

This study uses secondary data in the form of government effectiveness index, regulatory quality, rule of law, and control of corruption issued by WDI World Bank, while the tax ratio is the ratio between the amount of tax revenue to GDP. However, since not all complete data is owned by 11 ASEAN countries, only six countries
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have complete data during the period 2006-2015. These countries are Indonesia, Malaysia, Philippines, Thailand, Singapore, Cambodia. Good Government governance data is obtained from the World Government Index (WDI), in the form of index numbers ranging from -2.5 to 2.5. The negative index indicates that the achievement of each country's good government governance indicator is rated worst and plus 2.5 shows the best performance.

Structural Model

To analyze the effect of tax ratio and good government governance on economic growth in ASEAN countries, the econometric model is made:

\[ Y = \alpha + \alpha_1 TR_{it} + \alpha_2 GE_{it} + \alpha_3 RQ_{it} + \alpha_4 RL_{it} + \alpha_5 CC_{it} + e_{it} \]

in which, Y is economic growth (%), TR is tax ratio (%), GE is Government Effectiveness (index), RQ is Regulatory Quality (index), RL is Rule of Law (index), CC is Control of Corruption (indeks), \( \alpha_1 \) is cooefficient, \( \alpha \) is intercept, i is periode and t is country (Riyad, 2012).

4. RESULT

Based on Chow test and Hausman test, it is found that FEM model is the best model that can be used for estimation. Chow test results as follows.
Table 1

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>3.796383</td>
<td>(5.49)</td>
<td>0.0055</td>
</tr>
</tbody>
</table>

Chow test shows that the value of Prob. Cross-section F of 0.0055 is smaller than the 0.05 significance level. Thus a good model used in this study is the Random Effect Model (REM). Then proceed with Hausmann Test to compare whether the FEM or REM model is appropriate. With the following results.

Table 2: Hausmann Test

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>6.591508</td>
<td>5</td>
<td>0.2528</td>
</tr>
</tbody>
</table>

Probability value. Chi-square is 0.2528 or greater than the 0.05 significance level so Ho is accepted. This means that the FEM model is more suitable to use than REM model. Then the estimated FEM model selected as follows:

\[ Y = 10,32 + 9,994 \text{TR}_{it} + 304,833 \text{GE}_{it} + 625,482 \text{RQ}_{it} \\
+ 847,389 \text{RL}_{it} + 382,292 \text{CC}_{it} \]

The value of \( R^2 = 0.4146 \), indicating the variation of economic growth in 6 ASEAN countries can be explained by the variation of tax
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ratio, government effectiveness, regulatory quality, rule of law, and control of corruption 41.46% while the rest or 58.54% other factors outside the model. T-statistic test is performed to see if separately the independent variable is able to explain the dependent variable well. The test results showed that at the level of $\alpha = 0.05$ obtained the following conclusions.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR</td>
<td>0.0678**</td>
</tr>
<tr>
<td>GE</td>
<td>0.0173*</td>
</tr>
<tr>
<td>RQ</td>
<td>0.0014*</td>
</tr>
<tr>
<td>RL</td>
<td>0.0003*</td>
</tr>
<tr>
<td>CC</td>
<td>0.0044*</td>
</tr>
</tbody>
</table>

T-statistic test

* $\alpha = 5\%$ dan ** = 10\%

Tax ratio is the ratio between the amount of tax revenue compared with Gross Domestic Product (GDP). Compared to the other five countries in ASEAN, Thailand has the highest average tax ratio of 16.42%, while Cambodia is the lowest at 11.017%. Based on the estimation result, the regression coefficient value of Tax Ratio is 9,994 and significant at 10% confidence level. This means that any increase in tax ratio of 1%, will increase economic growth 9,994% ceteris paribus. This is consistent with Huang and Frentz's research. According to Gale and Andrew that not all taxes will have the same impact on economic growth. Tax reforms by improving incentives, reducing existing distortion subsidies, avoiding windfall profits, and
avoiding financing deficits will have a positive effect on long-term economic growth, can even create trade-offs.

Government effectiveness is a measure of the quality of public services, the quality of civil service and the degree of independence of political pressure, the quality of formulation and the implementation of policies, and the credibility of the government's commitment to the policy. The government effectiveness in 6 ASEAN countries fluctuates from year to year. The highest quality of government effectiveness is Singapore with 2,239 while the lowest of Cambodia is -0.856. Estimation results show that if it increases the economic growth will increase. Rafayet et al. (2017) support this finding that government effectiveness positively impacts economic growth in ASEAN. Likewise, Wibowo states that the quality of public services has a significant effect on economic growth.

Regulatory quality is a measure of the government's ability to formulate and implement policies and regulations and the ability to promote private sector development. Regulatory Quality relates to rules and regulations to facilitate market imperfection. Implementation of policies and regulations in 6 ASEAN countries fluctuates from year to year. The highest implementation of the rule of quality is in Singapore at 1.934 while the lowest in the Philippines is -0.098. The result of positive coefficient value 625,482, meaning if the implementation of the rule of quality increases 1 index, it will encourage economic growth to 625,482. Yilmaz states that regulatory quality has a significant positive impact on economic growth. Marlina
supports these findings that the implementation of policies and regulations has a positive and significant impact on economic growth in ASEAN countries, although Huynh and Jachochávez (2009) find different ways that the implementation of policies and regulations have no effect on economic growth because policymakers and the rent seekers neglect the interests of the people who should benefit and benefit from the implementation of the policy.

Rule of law is the measure of a person obeying the rules of society and enforcing the law. The full Rule of Law refers to public trust in the police and judicial system, compliance with the law, legal and order traditions, the power and impartiality of the legal system. In addition, independence, effectiveness, predictability, and judicial integrity, compliance with court decisions, legal avenues to challenge government action, and the ability to prosecute the government through an independent and impartial tribunal. If the rule of law is obeyed by the layers of society then economic growth increases. The highest law enforcement in Singapore was 1,723 while the lowest was Cambodia at -1.038. Law enforcement is an important indicator in creating good governance because law enforcement can limit the authority of the government from becoming a corrupt government.

A law-abiding government may exercise its duties, authorities and responsibilities. Law enforcement is able to ensure a clean and well-run government, which in turn is expected to bring widespread impact on economic progress and increase the rate of economic growth. Based on the estimation result, the regression coefficient value
of law enforcement is equal to 847,389. This is supported by Resnick and Birner (2006) who found that law enforcement has a positive and significant impact on economic growth. Haggard found no causal relationship between law enforcement and economic growth in developed countries. The original Ozpolat et al. (2016) states that the Rule of law is the basis of socio-economic development. Prevention of corruption and freedom of expression, institutional structures have a significant impact on economic growth.

Corruption is the use of power for personal and group interests. Control of corruption refers to government authorities to monitor the prevalence of corruption and impose sanctions on the perpetrators transparently. Every citizen has legal rights over information about government operations and can obtain government documents at a nominal cost. If control of corruption goes well, it will increase economic growth. Control of corruption in 6 ASEAN countries fluctuates from year to year. The highest corruption control of Singapore is 2,179 while the lowest in Cambodia is -1.131. Based on the estimated value of the regression coefficient of corruption control of 382,292 means that when the control of corruption is increased will increase economic growth. Kaufmann's (2005) study supports this that the quality of governance especially corruption control in some countries has changed significantly. According to Huynh and Jachochávez (2009), control of corruption control becomes part of important good government governance and has a significant effect on economic growth. Aidt et al. (2008) found that in countries with low
institutional quality, high tend to corruption depressed economic growth (Baroughi & ZAREI, 2013).

4.1. Individual Effect

The advantage of using FEM model panel data is the resulting individuality heterogeneity or characteristic of each state reflected by the magnitude of individual effects. From the results of the analysis, obtained individual effect of each country in ASEAN as follows.

Table 4: Individual Effect in 6 ASEAN Countries Period 2006-2015

<table>
<thead>
<tr>
<th>No.</th>
<th>Country</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FILIPINA</td>
<td>227.2739</td>
</tr>
<tr>
<td>2</td>
<td>INDONESIA</td>
<td>331.8742</td>
</tr>
<tr>
<td>3</td>
<td>KAMBOJA</td>
<td>422.5987</td>
</tr>
<tr>
<td>4</td>
<td>MALAYSIA</td>
<td>-221.2540</td>
</tr>
<tr>
<td>5</td>
<td>SINGAPURA</td>
<td>-911.0089</td>
</tr>
<tr>
<td>6</td>
<td>THAILAND</td>
<td>150.5161</td>
</tr>
</tbody>
</table>

There are two individual countries with negative effects, namely Singapore and Malaysia. This shows that these two countries are very consistent and depend on their economic growth in the implementation of good government governance, without its, economic growth in both countries is negative. Four (4) other countries have positive individual effect figures, namely Indonesia, Thailand, Filiphina, Cambodia. This indicates that economic growth in these four countries is less dependent on good government governance implementation. The
economy continues to grow positively as it is supported by ownership of factors of production, natural resources, human resources, and other production factors that support its economic growth. Government Governance is not the only determinant of its economic growth (Simamora et al., 2019: Zare & Zade, 2014).

5. CONCLUSION AND RECOMMENDATION

1. Tax Ratio and governance have a positive effect on economic growth in 6 ASEAN countries.

2. Economic growth in Malaysia and Singapore is highly dependent on good government governance practices, while Thailand, Indonesia, the Philippines, Cambodia relies more on other sectors such as natural resources, human resources, trade rather than governance practices the good one.

3. To promote economic growth, in addition to reforming the taxation sector, the government must implement good governance by providing the best service to the community, eradicating corruption, enforcing rules and regulations, creating rules and legislation of good quality, fair and consistently run.
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