The Influence of The Corruption Perception Index, Exports of Goods and Services, and Unemployment Rate on Economic Growth in 9 ASEAN Countries

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Abstract
This study aims to analyze the relationship between the index of corruption perceptions, exports of goods and services, and the unemployment rate on economic growth in 9 ASEAN countries. This study uses panel data from 2016-2020 in 9 ASEAN countries. The variables used are economic growth with the independent variable index of perceptions of corruption, exports of goods and services, and the unemployment rate. Based on the regression results, the corruption perception index variable has no effect on economic growth in 9 ASEAN countries. While the variable exports of goods and services have a positive and significant effect on economic growth in 9 ASEAN countries. And the unemployment rate variable has a negative and significant effect on economic growth in 9 ASEAN countries.

Keywords Corruption, Exports, Unemployment, Economic Growth

INTRODUCTION
Economic growth can be interpreted as a process of continuous change in a country's economic condition towards better conditions, where there is a physical increase in the production of goods and services prevailing in that country. (Afif & Ciptawaty, 2020). Economic growth is an increase in economic activity that takes place in a country and has an impact on increasing the output of goods and services over a certain period of time (Aida et al., 2021). The economy is said to experience growth if the reward for the use of factors of production during a certain year increase from the previous year. That is, when people's actual income in a year exceeds income in previous years, then the country experiences an increase in economic growth (Hendrawati et al., 2022). Economic growth can be measured by the total Gross Domestic Product (GDP) of a country in an aggregate manner where the high value of the Gross Domestic Product (GDP) indicates that the country's economy is in good condition.

The progress of economic growth is one of the objectives of achieving development desired by the government, both at the national and regional levels, aiming to improve people's welfare (Yuliawan & Wanniatie, 2021). In an effort to increase it, there needs to be careful planning in carrying out economic activities. However, not all countries can achieve economic growth as planned, especially for developing countries. This is because there is an inability of a country to provide sufficient capital to support the implementation of economic activities as previously planned. This is what underlies the importance of international economic cooperation in supporting the fulfillment of needs, especially in increasing economic growth. A regional body, namely the Association of Southeast Asian Nations (ASEAN) was established in Bangkok on August 8, 1967 with the same goal, especially to increase economic growth. Initially, ASEAN consisted of five countries and eventually...
developed into ten ASEAN countries. However, in 2022 at the ASEAN Summit in Phnom Penh the country of Timor-Leste Timor-Leste joined as the 11th member of ASEAN which was agreed upon by the leaders of the association of Southeast Asian Nations. The organization was established to meet the needs and interests of countries in the ASEAN region, especially in the cultural, social and economic fields (Sari & Kaluge, 2018). Over time with the formation of ASEAN, economic boundaries began to fade as a result of global demands that each country be able to carry out open trade. The formation of this regional organization is devoted to promoting economic growth for member countries from the time it was formed to in the long term.

Given the importance of economic growth for a country, it is necessary to have the role of the government in achieving strong economic growth. One of the government's efforts to increase economic growth is also influenced by how governance is carried out in overcoming corruption problems in the country concerned. Corruption is a serious problem whose impact can damage a country's development plans. According to Audi and Ali, most developing countries have corruption that tends to increase due to weak transparency, low accountability, a broken judicial and legislative system, and an incorrect organizational structure. (Firman & Munim, 2022). Continued corruption will be a burden to the country's wealth and economic growth because corruption will drive out new investment and create uncertainty about personal and social rights, as well as reduce public trust in government.

In relation to corruption is evidenced in research conducted by Podobnik et al., (2008) said that an increase in the corruption perception index would increase GDP per capita growth, especially in European countries. Nawatmi, (2014) in his research in 12 Asia-Pacific countries also stated that it has a positive influence on growth. This means that if the corruption index increases, it can increase economic growth. In addition, Myrdal (1968) stated that corruption worsens the economy because corruption will lead to lower efficiency and can become an obstacle to the development of a country. (Lutfi et al., 2020). In contrast to previous research, there are different opinions which say that corruption will have a positive influence on the economy. It is said by Liu, (1985) AndLeff, (1964) which states that bribery or corruption can eliminate ineffective government regulations so that business licenses can be obtained more quickly.

In international trade, unfair competition often arises between business actors. With this competition, the problem of corruption also becomes a significant implication of business ethics in export and import activities. Corrupt practices such as bribery and extortion can influence business decisions and harm society in general. Law, transparency and accountability are important issues in export activities where the lack of effective regulation and transparency can facilitate unethical business actions (Princess, 2023). According to Triyoso (2004), exports are trading activities that take place by moving goods or commodities between countries with existing demands, in this case, exports include the total products and services that are traded such as goods, insurance protection, and services or services. (Santoso & Artha, 2021). In the context of international trade, exports are an important part of a country that functions to gain profits and increase national income in order to increase the rate of output growth and economic growth. (Risma et al., 2018). In
addition, an increase in exports generates foreign exchange income that can be used to finance the import of raw materials and equipment needed in production and provide added benefits. (Ginting, 2017).

In relation to economic growth, exports are referred to as a driving force for strong growth because they are able to increase people's living standards, alleviate poverty, increase foreign exchange and by implication foreign exchange reserves, increase the competitiveness of companies, improve the company's financial position and the country's financial position (Siyan & Duru, 2019). Foreign trade activities such as exports are largely determined by how production activities take place (Putra & Sutrisna, 2017). In carrying out production, it is necessary to have new labor inputs to support increased production of goods and services, especially in terms of exports. If a country's production activities are low or weakened, the resulting production is unable to meet domestic needs and cannot carry out export activities as it should. If exports are not met properly, it will become a threat to increasing a country's economic growth. In addition, increasing export growth will help create job opportunities in a country. This is because if exports increase, a country's production process will also increase so that new labor inputs are needed and ultimately unemployment will decrease due to job opportunities.

The high level of unemployment is a labor problem that is often experienced by developing countries. Unemployment indicates the inability of a country's economy to fully utilize labor resources (Anghel et al., 2017). Higher unemployment will result in reduced income of the people and will reduce prosperity and welfare. People's welfare that continues to decline will result in more people being trapped in poverty and result in a slowdown in economic growth.

**Formulation of the problem**

The purpose of conducting this research is to understand the impact of the corruption perception index, exports of goods and services, and the unemployment rate on economic growth in nine ASEAN countries during the 2016-2020 period.

**Research purposes**

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**LITERATURE REVIEW**

**Economic growth**

According to Mankiwi, economic growth is a parameter used by a country to measure success development and as a determinant of further development policies (Rizky et al., 2022). Economic growth is an activity in an economy that will result in an increase in the number of products or services produced in society and will also improve people's welfare (Husain & Marcelina, 2022). According to Todaro, economic growth is a process in which the production capacity of the economy continues to increase to generate greater income.
Economic improvement in a country can be assessed through national indicators such as gross domestic product (Fajar & Azhar, 2018).

\[
\text{Economic Growth} = \frac{\text{GDP}_t - \text{GDP}_{t-1}}{\text{GDP}_t} \times 100
\]

According to the Harrod-Domar theory, the economy must obtain aggregate spending that includes government spending and greater exports to achieve steady growth (Deprianto et al., 2011). The Harrod-Domar theory itself is a theory that complements the Keynesian theory. The Harrod-Domar theory saw the economy in the long term while Keynes saw the economy in the short term.

**Corruption**

According to Baharudin Lopa who referred to David M. Chalmers who stated that corruption covers various fields, including the practice of bribery and manipulation in the field of public and economic interests. The term is taken from the definition that "financial manipulation is detrimental to the economy and perpetrators of crime are often branded as corruptors." (Widana et al., 2020). Transparency International describes corruption as the abuse of entrusted power but used for personal gain. Corruption can mean fraudulent activities in the form of embezzlement or misappropriation of state or company finances for personal gain.

Corruption can be measured by the corruption index (CPI), which Transparency International has developed since 1996, which calculates the level of corruption worldwide on a scale of 0-100. A score of 0 is perceived as a country that is very corrupt, meaning a country that has a CPI score that is low or close to 0. This indicates that the country has serious or high corruption cases. Meanwhile, a score of 100 is perceived as clean of corruption, meaning that a country with a high CPI score or closer to 100 indicates that the country is clean of corruption or has a low level of corruption.

According to Widana et al. (2020) in research related to the relationship between corruption and economic growth, there are two parties who have different opinions. The first party is the party that states that corruption can smooth the wheels of the economy, namely the party that supports the "grease the wheel" hypothesis. Meanwhile, the second party is those who believe that corruption has a detrimental effect on the economy, and they support the "sand the wheel" hypothesis.

**Export**

Todaro is of the opinion that international trade which aims to increase domestic demand and have an impact on the development of large industries as well as a balanced political and social system is export (Risma et al., 2018). Export is part of cross-border trading activities carried out to strengthen its economy and increase its ability to compete with other countries.

**Unemployment**

The unemployment rate reflects a condition where individuals in the labor force want to work but have not been able to get it (Astari et al., 2019). Unemployment in the view of
society is a condition where a person is in an inactive condition (Ayu & Husaini, 2013). Unemployment continues to increase, one of which is due to an imbalance between the number of workers and the demand for work. The unemployment rate can be calculated as follows:

\[
\text{Unemployment Rate} = \frac{\text{Number of unemployed people}}{\text{Total Work Force}} \times 100\%
\]

Okun's law explains the correlation between economic growth and unemployment. This law was discovered by an economist named Arthur Okun. Okun explained that every one increase in unemployment reduces GDP by 2% (Amaliyah & Musa, 2022). Thus, there is a negative or conflicting effect between unemployment and economic growth. When the number of unemployed decreases, economic growth increases and vice versa.

METHOD

A descriptive quantitative approach is used in research using panel data consisting of secondary data types. This panel data includes cross-sectional data, namely nine ASEAN countries (Malaysia, Cambodia, Singapore, the Philippines, Indonesia, Vietnam, Myanmar, Thailand and Timor-Leste). While the time series of this research is 2016-2020. This study uses 3 independent variables, namely the index of perceptions of corruption, exports of goods and services, and the unemployment rate and economic growth as the dependent variable. Each research data was obtained from the World Bank and Transparency International. This research uses E-Views tools. The equation model in this study is:

\[
PE_{it} = \beta_0 + \beta_1 CPI_{it} + \beta_2 EX_{it} + \beta_3 TP_{it} + e_{it}
\]

PE = Economic growth
\( \beta_0 \) = Intercept (constant)
CPI = Corruption Perception Index
EX = Export of Goods and Services
TP = Unemployment Rate
e = Fault variables (error terms)
t = Time series units for 2016-2020
i = Unit cross section of nine ASEAN countries
\( \beta_1, \beta_2, \beta_3 \) = Regression coefficient

RESULTS AND DISCUSSION

Regression Model Selection

Table 1 shows the panel data regression model test

<table>
<thead>
<tr>
<th>Test</th>
<th>Prob</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chow test</td>
<td>0.0002</td>
<td>FEM</td>
</tr>
<tr>
<td>Hausman test</td>
<td>0.0000</td>
<td>FEM</td>
</tr>
</tbody>
</table>

Source: Eviews, 2023
From the table listed above, it can be concluded that the FEM model is the best model in the Chow test and Hausman test. Therefore, the fixed effect model will be reused without conducting the Langrange Multiplier test.

**Results of Analysis of Classical Assumption Testing**

**Normality test**

For to know whether there are residuals from normally distributed regressions or not, a normality test can be carried out (Priyatno, 2022). The normal probability plot graphical analysis method used in this study is based on the Prob value. Jarque-Bera.

![Figure 1. Normality Test.](image)

From the picture above it is known that the Jarque-Bera value is $2.933028 > 0.05$. So it can be concluded that the data is normally distributed.

**Heteroscedasticity Test**

Heteroscedasticity Test is a situation where there is inconsistency between all observations in the regression model (Priyatno, 2022). The Glejser technique was used in this study, which was carried out by regressing the independent variables to the residual values (Widana & Muliani, 2020).

<table>
<thead>
<tr>
<th>Variables</th>
<th>coefficient</th>
<th>std. Error</th>
<th>t-Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-1.273372</td>
<td>12.27946</td>
<td>-0.103699</td>
<td>0.9180</td>
</tr>
<tr>
<td>CPIs</td>
<td>-0.017416</td>
<td>0.323620</td>
<td>-0.053816</td>
<td>0.9574</td>
</tr>
<tr>
<td>EX</td>
<td>-0.012545</td>
<td>0.075062</td>
<td>-0.167135</td>
<td>0.8683</td>
</tr>
<tr>
<td>TP</td>
<td>2.318727</td>
<td>1.294970</td>
<td>1.790565</td>
<td>0.0825</td>
</tr>
</tbody>
</table>

Source: Eviews, 2023
Based on the estimation results, it is known that the probability value of each variable is greater than the degree of confidence 0.05 ($\alpha = 5\%$). This means that in this study there is no problem of heteroscedasticity.

**Multicollinearity Test**
Multicollinearity testing is used to determine whether there is a significant or close linear correlation between the independent variables in a regression model (Priyatno, 2022). This study uses the Pearson correlation test. In the multicollinearity test, the correlation value that can be tolerated is 80 percent (0.8).

<table>
<thead>
<tr>
<th>Table 3 Multicollinearity Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPIs</td>
</tr>
<tr>
<td>CPIs</td>
</tr>
<tr>
<td>EX</td>
</tr>
<tr>
<td>TP</td>
</tr>
</tbody>
</table>

Source: Eviews, 2023

Based on the estimation results of the multicollinearity test, it is known that the coefficient between variables has a value of less than 0.8 (80 percent). From this it can be concluded that there is no linear relationship between the variables in the model. Therefore, it can be concluded that there is no correlation between variables.

**Autocorrelation Test**

<table>
<thead>
<tr>
<th>Table 4 Autocorrelation Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>dL</td>
</tr>
<tr>
<td>1.2953</td>
</tr>
</tbody>
</table>

Source: Eviews, 2023

Autocorrelation testing to determine whether at different times there is a correlation between one observation and another (Widarjono, 2018). Durbin Watson's value on the regression results is 1.084975 which is in the positive autocorrelation area, which means that the regression contains autocorrelation problems. If the regression contains autocorrelation problems then autocorrelation can be cured by including the first difference in each eviews estimation variable (Widarjono, 2018). After healing the first difference autocorrelation, it is known that the Durbin Watson value is 2.3373. This means that in the variable there is no autocorrelation either negative or positive.

**Regression Estimation Results**
Based on these tests, the fixed effects model (FEM) was chosen as the panel data regression estimation model.
Table 5 Fixed Effect Models

<table>
<thead>
<tr>
<th>Variables</th>
<th>coefficient</th>
<th>std. Error</th>
<th>t-Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-2.130422</td>
<td>0.679847</td>
<td>-3.133680</td>
<td>0.0045</td>
</tr>
<tr>
<td>D(CPI)</td>
<td>0.030830</td>
<td>0.346382</td>
<td>0.089005</td>
<td>0.9298</td>
</tr>
<tr>
<td>D(EX)</td>
<td>0.944802</td>
<td>0.176360</td>
<td>5.357223</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(TP)</td>
<td>-4.170544</td>
<td>1.355966</td>
<td>-3.075699</td>
<td>0.0052</td>
</tr>
</tbody>
</table>

Source: Eviews, 2023

PEit = -2.130422 + 0.030830 CPIit + 0.944802 EXit - 4.170544 TPit

Statistical Testing

t test

From Table 4, it can be seen that the corruption perception index has no significant impact on the economic growth of the nine ASEAN countries. This is evidenced by the value of prob. a = 0.05. Meanwhile, exports of goods and services have a significant positive correlation with the economic growth of nine ASEAN countries. This is also supported by the prob value. less than a = 0.05. On the other hand, the unemployment rate has a significant negative correlation with the economic growth of the nine ASEAN countries.

F test

In this study used a = 0.05 and (df2= nk-3-1=32) and k = 3 which gives an F-table value of 2.901 with an F-statistic of 5.9900424. Based on the F test, obtained F-statistics (5.9900424) > F-table (2.901). This means that the corruption perception index, exports of goods and services, and the unemployment rate have a significant correlation with the economic growth of the nine ASEAN countries.

The Effect of Corruption Perceptions Index on Economic Growth in Nine ASEAN Countries

Based on the results of the assessment, it was found that the Corruption Perception Index had no effect on economic growth in the nine ASEAN countries. In other words, whenever the Corruption Perceptions Index rises or falls, it does not affect the economic growth of the nine ASEAN countries.

According to Swalehee & Stansel (2007), the relationship between corruption and economic growth depends on how independent a country's economy is. In countries with great economic freedom, corruption can have a positive impact on economic growth. Meanwhile, economic growth slows down in countries with low economic freedom. (Akman & Sapha AH, 2018). The reason why the corruption index does not affect economic growth in the nine ASEAN countries is because each country studied has different economic policies. There are countries that have many policies so that their economic freedom is low.
And there are countries whose policies are a little lax and show a greater degree of economic freedom.

**The Effect of Exports of Goods and Services on Economic Growth in 9 ASEAN Countries**

Based on the estimation results, exports of goods and services have a significant positive correlation with the economic growth of the nine ASEAN countries. Exports are a source of foreign exchange that is much needed for an open economy, because exports are spread across various countries and can increase production which promotes economic growth and significantly affects the stability and growth of the country's economy (Hodijah & Angelina, 2021).

This research is consistent with research Oktavia & Soelistyo (2020), Exports have a significant positive correlation with economic growth. In other words, export growth affects the economic growth of the five ASEAN countries. According to Astuti & Ayuningtyas (2018), continued export growth led to stronger domestic production. This production growth will spur the domestic economy, so that economic growth continues to grow in line with export growth. The results of the study are also consistent with Harrod-Domar's theory, namely that a stable economy requires aggregate consumption which includes more components, namely government spending and exports. (Deprianto et al., 2011).

Because of the important role of exports in economic growth, the government needs to make various efforts or strategies to increase the value of exports, so that it has a positive impact on increasing economic growth due to a trade surplus. The government can make various efforts or strategies to achieve a trade balance surplus, such as an export promotion strategy, namely the government will encourage exports of products that have a comparative advantage to be more efficient and able to compete in the global market. And the import substitution strategy is a government policy to reduce imports by setting tariffs or quotas for imported goods so that the price of imported products will be more expensive than the price of local products. (Haryati & Hidayat, 2015).

**The Effect of Unemployment Rate on Economic Growth in 9 ASEAN Countries**

The results of the study can be concluded that the unemployment rate has a significant negative correlation with the economic growth of the nine ASEAN countries. The existence of unemployment in the economy certainly affects the achievement of economic growth. In this case, the lower unemployment rate will lead to a higher GDP level (Amaliyah & Musa, 2022). Unemployment that continues to occur will lead to low income and public consumption. If public consumption is low, then the producer's response to this is to reduce the production of goods and services, which means it indirectly affects the country's economy.

This research is consistent with research Al-Sawaie (2020), unemployment has a significant negative correlation with economic growth. This means that increasing unemployment reduces economic growth in Jordan, and conversely, when unemployment falls, Jordan's economic growth increases. This research is also consistent with Okun's Law
which states that there is a negative correlation between economic growth and unemployment. So, when unemployment falls, economic growth will increase and vice versa.

Efforts that can be taken by the government to reduce unemployment are by providing transparent information services regarding job availability, providing training to improve the skills of job seekers and promoting the development of small and medium enterprises to achieve economic independence. In addition, the government can establish cooperation with educational institutions both at home and abroad to create human resources with good quality and ability. Along with these efforts made by the government, the unemployment rate will decrease.

CLOSING

Conclusion

From the results of the calculations, it was concluded that exports of goods and services and the unemployment rate were significantly correlated with economic growth in nine ASEAN countries at a confidence level of 95 percent. Meanwhile, the corruption perceptions index variable did not significantly correlate with economic growth in the nine countries at a confidence level of 0.05 or 95%.

Suggestion

1. Governments of research countries need to work hard to eradicate corruption in any field or sector by increasing transparency, enacting strict anti-corruption laws and strict penalties.
2. Based on the research results, the government is expected to continue to increase export growth in order to obtain foreign exchange which can be used as development financing and increased economic growth. In increasing exports, the government can try to establish an export promotion strategy, namely the government encourages the production of goods that are comparatively superior so that they can become superior products from that country.
3. To overcome unemployment, the government must create a quality workforce by increasing education, technological skills and workforce training needed for the world of work. In addition, in terms of education, the government needs to cooperate with the private sector to provide practical work opportunities or internships for students, so that students can learn new skills that are not taught in education.

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