THE EFFECT OF SEA TRANSPORTATION, CONNECTIVITY AND GOVERNMENT POLICIES ON THE PEOPLE'S ECONOMY

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ABSTRACT
This research was carried out with the aim of knowing and analyzing the effect of sea transportation, connectivity and government policies on the people's economy. The research method uses a mix method approach. The research population is the community around the outermost areas of Natuna Regency, Bunguran Island. The number of samples was determined based on the Slovin formula (Riduwan 2015) of 100 respondents. The method of determining the sampling using Non-Probability Sampling. The data analysis method used is the Structural Equation Model (SEM) approach using Smart PLS (Partial Least Square) 3.0. The results of the study show that sea transportation, connectivity and government policies have a significant effect on the people's economy on Bunguran Island, Natuna Regency.

Keywords: Sea Transportation, Connectivity, Government Policies, People's Economy

INTRODUCTION
The economic growth of a region is a reflection of the success of economic development in that area. For an even distribution of development in the archipelago-based Natuna region, the Government through the Ministry of Public Works and Public Housing (PUPR) has started the construction of the Serasan Integrated National Border Post (PLBN), which is closer to West Kalimantan and eastern Malaysia. The construction of this PLBN is expected to become a new center of economic growth in border areas or known as 3TP (Forefront, Outermost, Disadvantaged and Border) as well as carrying out the mandate of Presidential Instruction (Inpres) Number 1 of 2019 concerning Accelerated Development of 11 Integrated State Cross-Border Posts and Infrastructure. Support in the Border Area. PLBN development is not only the pride of the Indonesian nation as a great nation, but most importantly is the function of defense and security and at the same time as a center for new economic growth in Indonesia's border areas (setkab.go.id, 2020). Economic growth is defined as the activities development in the economy that causes the goods and services produced in society to increase and the people prosperity to increase. Economic growth is a significant increase in national income (by increasing per capita income) within a certain calculation period (Putong, 2015: 411).
Based on Figure 1 above, it can be seen that the rate of economic growth in Natuna Regency in the last 5 years has been fluctuating and has decreased drastically in 2020 due to the Covid-19 pandemic but has since returned to a positive value. In general, it can be seen that the majority of Natuna's economic growth is still supported by the non-oil and gas sector, in which the people's economic sector is part of it.

The people's economy in this study can be influenced by sea transportation, sea transport connectivity and government policies. Sea transportation is an activity of transporting and/or moving passengers and/or goods using water vehicles that have a certain shape and type, and can be driven by mechanical power, wind power or other forms of energy (Jinca, 2011).

Sea transportation is needed because of the existence of production centers that are located different from consumption centers. This difference relates to abnormalities in the value of products produced in the region of origin for sale to the destination area in order to increase the value of the goods produced. The existence of sea transportation supports the movement of production goods needed by other regions, so that smooth sea transportation can mobilize product goods and people and can increase the people's economy. This is in accordance with research conducted by Styaningrum (2021), Mas'ud et al. (2022), Hartono & Sarwono (2011) which states that sea transportation has a significant effect on the people's economy and economic growth.

Connectivity in this study is the connection between road transportation (vehicles) and sea transportation (ports) so that goods can be moved from production to their destination. In supporting connectivity in Natuna, the Ministry of Transportation through the Directorate General of Land Transportation is providing subsidies for pioneering freight from Perum Damri which will serve in Natuna, Riau Islands Province (Kepri), with the Ranai-Selat Lampa route of 80 kilometers. The provision of pioneering goods transport subsidies is intended to support logistics distribution in all corners of Indonesia. This pioneering freight transport service from Damri is also to realize connectivity and reduce the price gap between regions in Indonesia, as well as improve the people's economy (Shofa, 2020).

Government policy is a series of decisions or actions as a result of structured and repeated interactions among various actors, both public/government and private, who are involved in various ways of responding, identifying and solving a problem that is politically defined as a public problem (Wahab, 2017). In terms of government support policies, it is assumed that since the government is leading the development of entrepreneurship, it should provide much-needed resources within its means. These resources include providing an enabling environment for business that will greatly encourage entrepreneurship. Government policies in this context are all actions aimed at regulating and improving the conditions of SMEs in terms of support, implementation and funding policies by the government (Obaji, 2014). This policy, if carried out continuously, will have a significant impact on the people's economy and economic growth, as
identified from the results of research conducted by Obaji & Olugu (2014), Vatavu et al. (2021), and Akinyemi & Adejumo (2018).

**RESEARCH METHOD**

The subjects of this research were 205 pairs of mothers and children. The type of research used is an analytical observational research design with a cross-sectional study design, namely studying the relationship between knowledge and the role of parents and PAUD living in poverty and chewing betel nut among children aged 3-6 years in Kab. Kupang, with this data collection is carried out at one time (point time approach.). This research was conducted in preschools in Oelnaineno village and Tanini villages, Paud Oelbiteno, Paud Nefoneke in Kupang Regency. The sample was carried out using multistage random sampling. The sample parents were willing to give permission by filling out an informed consent sheet and questionnaire. The selection of poverty communities was based on data on people who received assistance from the Government whose data was taken from the local government. The research data sources are primary and secondary data. Primary data was obtained from interviews using a questionnaire regarding the knowledge and roles of parents and children who consume betel nut. Analysis was carried out using univariate and bivariate methods. Univariate analysis was carried out to determine the description of knowledge, attitudes and roles of parents regarding starting to consume betel nut in children. Bivariate analysis was carried out to see the relationship between independent and dependent variables, namely the relationship between knowledge and the role of parents and EEC / Early Education Children in Poverty Life using the chi square test. The value used to see whether there is a relationship between two variables is the p value, where p < 0.05 means there is a significant relationship.

**RESULTS AND DISCUSSION**

**Evaluation of Outer Model**

To test the convergent validity, the outer loading value or loading factor is used. An indicator is declared to meet convergent validity in the good category if the outer loading value is > 0.7.
The following is the outer loading value of each research variable dimension:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Dimension</th>
<th>Outer Loading</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea Transportation (X1)</td>
<td>Means</td>
<td>0.911</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Infrastructure</td>
<td>0.885</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Road/Sea</td>
<td>0.894</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Personnel</td>
<td>0.893</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Management organization</td>
<td>0.851</td>
<td>Reliable</td>
</tr>
<tr>
<td>Connectivity (X2)</td>
<td>Road transportation</td>
<td>0.943</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Crossing transportation</td>
<td>0.936</td>
<td>Reliable</td>
</tr>
<tr>
<td>Government Policy (X3)</td>
<td>Goal</td>
<td>0.916</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Plan</td>
<td>0.934</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Program</td>
<td>0.900</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Decision</td>
<td>0.918</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Effect</td>
<td>0.915</td>
<td>Reliable</td>
</tr>
<tr>
<td>The Public Economy (Z)</td>
<td>Opportunities and employment</td>
<td>0.872</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Social Security</td>
<td>0.861</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Even distribution</td>
<td>0.889</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Economic growth</td>
<td>0.867</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Healthy market mechanism</td>
<td>0.891</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Based on the data in Table 2.2 above, it is known that each dimension and indicator of the research variables all have an outer loading value of > 0.6. This is according to Chin's opinion quoted by Imam Ghozali (2015: 39), an outer loading value between 0.5 - 0.6 is considered sufficient to meet the requirements of convergent validity. The data above shows that there are no variable indicators whose outer loading value is below 0.7, so that all indicators are declared feasible or valid for research use and can be used for further analysis.

**Discriminant Validity**

In this section, the results of the discriminant validity test will be described. The discriminant validity test is carried out by looking at the average variant extracted (AVE) value for each indicator, the value must be > 0.5 for a good model. The following presents the results of the discriminant validity test in the following table:

<table>
<thead>
<tr>
<th>Variables</th>
<th>AVE</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea Transportation</td>
<td>0.511</td>
<td>Valid</td>
</tr>
<tr>
<td>Connectivity</td>
<td>0.552</td>
<td>Valid</td>
</tr>
<tr>
<td>Government Policy</td>
<td>0.566</td>
<td>Valid</td>
</tr>
<tr>
<td>Public Economy</td>
<td>0.514</td>
<td>Valid</td>
</tr>
</tbody>
</table>

*Source: Results of PLS Processing, 2023*

Based on table 1.3 above, it is known that the AVE value of the Sea Transportation, Connectivity, Government Policy and Economic Growth variables is > 0.5. Thus it can be stated that each variable has good discriminant validity.

**Composite Reliability**
Composite Reliability is the part that is used to test the value of the reliability of indicators on a variable. A variable can be declared to meet composite reliability if it has a composite reliability value of ≥ 0.7. The following is the composite reliability value of each research variable:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Composite Reliability</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea Transportation</td>
<td>0.963</td>
<td>Reliable</td>
</tr>
<tr>
<td>Connectivity</td>
<td>0.925</td>
<td>Reliable</td>
</tr>
<tr>
<td>Government Policy</td>
<td>0.970</td>
<td>Reliable</td>
</tr>
<tr>
<td>Public Economy</td>
<td>0.963</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Source: Results of PLS Processing, 2023

Based on Table 2.4 above, it can be seen that the composite reliability value obtained for all research variables is ≥ 0.7. These results indicate that each variable meets composite reliability so that it can be concluded that all variables are reliable with a high level.

Cronbach Alpha

The reliability test with the composite reliability above can be strengthened by using the Cronbach alpha value. A variable can be declared reliable or meets cronbach alpha if it has a cronbach alpha value > 0.7. The following is the cronbach alpha value of each variable:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach Alpha</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea Transportation</td>
<td>0.960</td>
<td>Reliable</td>
</tr>
<tr>
<td>Connectivity</td>
<td>0.783</td>
<td>Reliable</td>
</tr>
<tr>
<td>Government Policy</td>
<td>0.968</td>
<td>Reliable</td>
</tr>
<tr>
<td>Public Economy</td>
<td>0.960</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Source: Results of PLS Processing, 2023

Based on Table 2.5 it can be seen that the Cronbach alpha value of each research variable is ≥ 0.7. Thus these results indicate that each research variable has met the requirements for the Cronbach alpha value, so it can be concluded that all variables have a high level of reliability.

Evaluation of Inner Model

Hypothesis testing is carried out based on the results of testing the Inner Model (structural model) which includes the output r-square, parameter coefficients and t-statistics. To see whether a hypothesis can be accepted or rejected by considering the significance value between constructs, t-statistics, and p-values. Testing the research hypothesis was carried out with the help of SmartPLS (Partial Least Square) 3.0 software. These values can be seen from the bootstrapping results. The rules of thumb used in this study are the t-statistic >1.96 with a significance level of p-value 0.05 (5%) and the beta coefficient is positive. The results of this boot straping research model can be described as follows:
Path Coefficient Test

Evaluation of the path coefficient is used to show how strong the effect or influence of the independent variable is on the dependent variable. While the determination coefficient (R-Square) is used to measure how much the endogenous variables are influenced by other variables. Chin in Ghozali (2015: 42) states that the R2 result of 0.67 and above for endogenous latent variables in the structural model indicates the effect of exogenous variables (which affect) on endogenous variables (which are influenced) is included in the good category. Meanwhile, if the result is 0.33 - 0.67 then it is included in the medium category, and if the result is 0.19 - 0.33 then it is included in the weak category. Based on the outer model scheme that has been shown in Figure 2.1 above, it can be explained that the path coefficient value in the dominant path coefficient is shown in the sea transportation variable on the people's economy of 0.356. Then the second path coefficient is shown in the government policy variable on the people's economy of 0.326. While the smallest value is shown in the connectivity variable to the people's economy of 0.301.

Based on the inner model scheme shown in Figure 2.2 above, it can be explained that the largest t-statistic value is indicated by connectivity to the people's economy of 3.817. Then the second biggest influence is the effect of sea transportation on the people's economy of 2.932. While the smallest effect is shown in the government policy variable on the people's economy of 2.831.

Based on the description of these results, it shows that the independent variable on the people's economy in this model has a path coefficient value with a positive number. This shows that the greater the value of the path coefficient on one of the independent variables on the community-based economic variable, the stronger the influence of the independent variables on the community-based economic variable.

Test of Goodness of Fit

Based on data processing that has been carried out using the smartPLS 3.0 program, the R-Square value is obtained as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>R Square Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Economy</td>
<td>0.931</td>
</tr>
</tbody>
</table>

*Source: Results of PLS Processing, 2023*
Based on the data in table 2.6 above, it can be seen that the R-Square value for the community-based economy variable is 0.931. This value explains that the people's economy can be explained by the variables of sea transportation, connectivity and government policies of 93.1% while the remaining 6.9% can be influenced by other variables not examined.

The goodness of fit assessment is known from the Q-Square predictive relevance, where the $Q^2 > 0$ indicates the model has predictive relevance, while the $Q^2 < 0$ indicates that the model lacks predictive relevance. The results of calculating the Q-Square value with blind folding are as follows:

<table>
<thead>
<tr>
<th></th>
<th>SSO</th>
<th>SSE</th>
<th>$Q^2 (=1 - \frac{SSE}{SSO})$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea Transportation</td>
<td>2500.000</td>
<td>2500.000</td>
<td></td>
</tr>
<tr>
<td>Connectivity</td>
<td>1000.000</td>
<td>1000.000</td>
<td></td>
</tr>
<tr>
<td>Government Policy</td>
<td>2500.000</td>
<td>1326.797</td>
<td>0.469</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>2500.000</td>
<td>2500.000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Results of PLS Processing, 2023

Based on Table 1.7 above, the Q-Square value for economic growth is 0.469. This indicates that the Q-Square value is above 0. Thus, from these results, the research model can be stated to have good goodness of fit.

Discussion

Effect of Sea Transportation on Public Economy

Based on the research results, it was obtained that the t-value was 2.932 > 1.96, meaning that sea transportation has a significant and positive effect on the people's economy. The path coefficient is 0.356, which means that the contribution of sea transportation to the people's economy is 35.6% and the remaining 64.4% is another factor not examined.

The dimension of sea transportation that most dominantly affects the people's economy is the dimension of facilities with indicators of opening up opportunities for the creation of new job opportunities and jobs. This indicates that sea transportation facilities that can open opportunities for job creation and new jobs are urgently needed by the people of Natuna Regency. Well-implemented sea transportation facilities can increase the chances of creating new job opportunities and jobs so that they can improve the people's economy.

Sea transportation that is well implemented in Natuna Regency such as the existence of facilities, infrastructure, shipping lines, personnel and management organizations that can open opportunities for the creation of new job opportunities and jobs, fulfillment of social security (education, health, etc.), distribution of activities and economic products, encouraging economic growth and the creation of a healthy market mechanism that can influence the people's economy to increase.

The results of this study are also in accordance with the opinions of the participants in the Forum Group Discussion (FGD) which stated that sea transportation is well implemented in Natuna Regency, such as the existence of facilities, infrastructure, shipping lanes, personnel and management organizations that can open up opportunities to create job opportunities and field new jobs, fulfillment of social security (education, health, and others), distribution of economic
activities and products, encouraging economic growth and creating a healthy market mechanism can affect the people's economy.

This study results support research conducted by Styaningrum (2021), Mas'ud et al. (2022), Hartono & Sarwono (2011) which states that sea transportation has a significant effect on the people's economy.

**Effect of Connectivity on Public Economy**

Based on the research results, the t-value is $3.817 > 1.96$, meaning that connectivity has a significant and positive effect on the people's economy. The path coefficient is 0.301, which means that the contribution of connectivity to the people's economy is 30.1% and the remaining 69.9% is another factor not examined.

Connectivity dimension that most dominantly influences the people's economy is the road transportation dimension with indicators capable of encouraging an increase in per capita income. This indicates that road transportation which can encourage an increase in per capita income is very much needed by the people of Natuna Regency. Road transportation that is implemented properly can encourage an increase in per capita income so that it can improve the people's economy.

Well-implemented connectivity in Natuna Regency such as the existence of road transportation and ferry transportation which can increase national income, increase per capita income, increase the number of workers, reduce poverty and increase production can affect the people's economy to increase.

This study results are also in accordance with the opinions of the participants in the Forum Group Discussion (FGD) who stated that connectivity that is well implemented in Natuna Regency, such as road transportation and ferry transportation, is capable of driving an increase in national income, an increase in per capita income, an increase in the number of workers, able to reduce poverty and increase production can affect the people's economy.

The results of this study support research conducted by Yetty, Amin & Waibot (2021), Pratama, Suparta & Syahputra (2020) which states that connectivity has a significant effect on the people's economy.

**Effect of Government Policy on Public Economy**

Based on the results of the study, it was obtained that the t-value was $2.831 > 1.96$, meaning that government policies had a significant and positive effect on the people's economy. The path coefficient is 0.326, which means that the contribution of government policies to the people's economy is 32.6% and the remaining 67.4% is another factor not examined.

Dimension of government policy that most dominantly influences the people's economy is the decision dimension with indicators of implementing decisions to increase production. This indicates that government policies that can implement decisions to increase production are urgently needed by the people of Natuna Regency. Decisions that are implemented properly are able to realize the implementation of decisions to increase production so as to improve the people's economy.

Government policies that are well implemented in Natuna Regency such as goals, plans, programs, decisions and effects are able to encourage an increase in national income, increase per capita income, increase the number of workers, are able to reduce poverty and increase production can influence the people's economy to increase.

Results of this study are also in accordance with the opinions of the participants in the Forum Group Discussion (FGD) which stated that government policies that were well implemented in Natuna Regency such as goals, plans, programs, decisions and effects were able to encourage an
increase in national income, increase per capita income, increase the number of workers, able to reduce poverty and increase production can affect the people's economy.

Results of this study support research conducted by Obaji & Olugu (2014), Vatavu et al. (2021), and Akinyemi & Adejumo (2018) which state that government policies have a significant effect on the people's economy.

CONCLUSION

Based on the findings from the results of research on economic growth and the factors that influence it and the explanations in the previous chapters, several research conclusions can be put forward as follows: There is a positive and significant effect of sea transportation on the people's economy in Natuna Regency. There is a positive and significant effect of connectivity on the people's economy in Natuna Regency. There is a positive and significant influence of government policies on the people's economy in Natuna Regency.

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