

## THE EFFECTS OF LAND TRANSPORTATION AND LOGISTICS POLICIES IN NEW NORMAL AGAINST FOOD AVAILABILITY IN JAKARTA

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**Abstract.** The purpose of this study is to determine the effect of the policies taken by the government regarding to the transportation and logistics on food availability in Jakarta. This research uses descriptive-quantitative methods. Data collection technique is questionnaires and the data analysis technique uses multiple linear regression analysis. The population of this research is the perpetrators of freight transportation companies and the citizen of Jakarta in 2020. The sample in this study uses a random sampling technique and the study took a total sample of 412 respondents. The results shows that the land transportation policy and logistics policy in new normal have a positive effect on food availability in Jakarta, so that people's needs are fulfilled.

**Keywords:** Policy, Land Transportation, Logistics, Availability, food

### Introduction

The transportation system is a combination of various basic elements of infrastructure that effects urban development (Aminah 2007). An integrated transportation system is implemented to bring good effects to the community so that there will be no transportation gaps in the future (Gerike and Koszowski 2017). In this case, Jakarta can be categorized as a city that has a more advanced transportation system compared to other regions in Indonesia. In other side, food is a basic and primary requirement for humans to be able to sustain life, therefore food sufficiency for everyone is a basic right that must be fulfilled. The adequate of food availability in good quantity and quality is an important aspect of realizing food security. Provisions are given by the president of Perpres number 83 of 2017 (President Republik Indonesia 2017). In the new normal period, there is a policy that effects the delivery of goods provided by the Ministry of Transportation regarding land transportation to PM 18 of 2020 8 (3) that is required to install stickers on logistic transportation (Perhubungan 2020). This can effect food delivery because the transportation of goods that do not use stickers is not permitted to operate, so it can be interpreted as having an effect on food availability in Jakarta. But there are still trucking services that do not install stickers but they keep operating, including violating the law. Violations committed by goods transport vehicles occur because of a lack of maximum supervision from field officers (Lutfah and Mulyono 2015). It can also be seen that one of the problems that often occurs is ODOL (overload). The following the provisions are concerning on overloading of LLAJ law number 22 of 2009 article 49 (1) motor vehicles, trains or patches imported, made, and or assembled domestically to be operated on the road must be tested (Indonesia 2009). Overload or ODOL can pose a high risk to the safety of the driver and other drivers. If there is an accident at the time of food distribution, this affects a bad impact on the needs of the community, especially in new normal (Korwas and Bareskrim nd 2018).

Besides, in terms of achieving a large and fast distribution of food availability, it can also have a good impact to meet the needs of the community (Kementerian Kesehatan Republik Indonesia 2020). Therefore it needs carefully consideration from the government to overcome this situation. The transportation and logistics policy adopted by the government determine how food distribution uses health protocols so that food sent via land transportation is safe and clean (Peraturan Gubernur 2020).

The New Normal Era is a step in patterns and habits and behaviors that lead to adjustments to civilize clean and healthy living behaviors (KemenKes RI 2020). Food distribution must be carried out maximally to support the lives of the people in the new normal period in Jakarta. The community is asked to stay at home and follow the health protocol recommended by the Ministry of Health in carrying out daily activities (KemenKes RI 2020).

Land transportation also prioritizes the needs of the community so that it is always fulfilled by prioritizing maximum services (Kadarisman, Gunawan, and Ismiyati 2017). Transportation of passengers and/or goods is also carried out by prioritizing safety by preparing the best facilities at the time of this new normal. One of the provisions given by the Minister of Transportation regarding land transportation is PM 18 of 2020 (8) 3 *paragraph b* is to install a special marker sticker for the transportation of goods that it can be interpreted every logical transport vehicle using a health protocol (Perhubungan 2020). The transportation of food during new normal times should also comply with regulations properly.

The application of regulations through the 2009 LLAJ Law Article 307 of road transport traffic state that every person who drives a Public Transport Motorized Vehicle that does not comply with the provisions regarding the procedure for loading, haulage, vehicle dimensions as referred to in article 169 paragraph (1) will be convicted with a maximum imprisonment of 2 months or a maximum fine of Rp. 500,000.00 (Indonesia 2009). Therefore, at the time of the new normal logistical actors must follow the rules of loading goods and not overloading the cargo for profit.

However, the delivery of logistics is currently delayed as usual. Logistics activities especially food items are hampered because of the Covid-19 plague disease. At the time of this new normal, delivery of goods should be done with the provisions of the health protocol taken by the Ministry of Transportation PM 18 of 2020 article 8 (3) *d* that the manager of logistics/goods transport must carry out sterilization by spraying disinfectant (Perhubungan 2020). Another provision was given by the Head of the National Disaster Management Agency number 13/2008 regarding to the Guidelines on Logistics Management and Disaster Management Equipment.

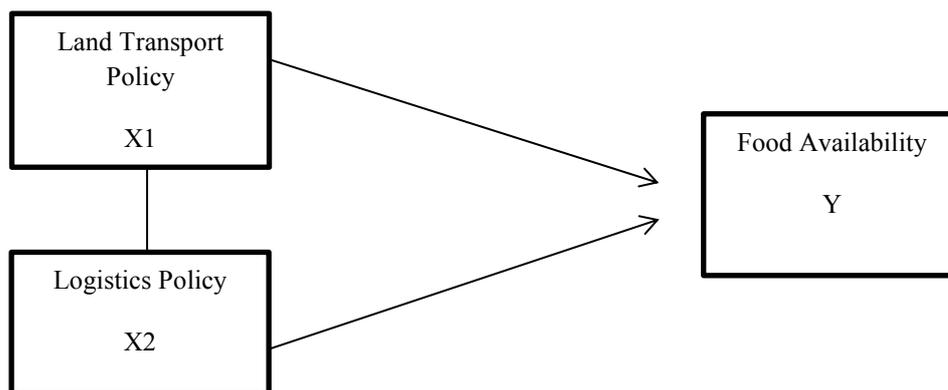
It explains that the process of receiving and procuring logistics and disaster management equipment starts from recording inventory including logistical categories or equipment then it is followed with where the assistance is received, what type of assistance, how much assistance is given, how to operate it, and whether there is a request for whom this assistance indicated. The receipt and procurement of goods for disaster assistance can come from the government (APBN), the community, business entities, and non-governmental organizations (Kepala BNPB 2008). In this case, if food logistics complies with the regulations above, it can be assured that it will run smoothly.

Food is the main needs that cannot be postponed and also become the main point in human survival. (Damayanti 2007) Food availability is the fulfillment of all food needs that can be consumed to survive not only rice but food derived from plants, and fish and others (Mun'im 2012). On the other hand, the availability of food will be realized if it meets 2 points namely the availability of sufficient and equitable food for the whole community then each resident has the physical and economic ability to meet their daily needs (Dewa Eka Nova, Fajri 2006). In the application of food security (Suharyanto 2011) that food security has 5 factors including being oriented in the household, the dimensions of food available, and easily accessible, emphasizing the household, aiming at fulfilling nutrition, focusing on healthy living. According to Law number 18 of 2012 article 1 (8) concerning food, National Food Reserves are food supplies in the entire territory of the Unitary Republic of Indonesia for human consumption facing the problem of food shortages, supply disruptions, and unstable prices (Presiden 2012). Each responsible country always has a national food reserve to always be available for food in the event of an unwanted event, and an emergency such as the current condition.

### Method

This research uses descriptive-quantitative methods. Quantitative research methods are methods in which the research process is based on real phenomena that occurs in the surrounding environment. The type of data used in this study uses primary and secondary data. Primary data is obtained from logistic company actors who answered questions in the form of questionnaires. Secondary data in this study is the regulations of the Ministry of Health and the Ministry of Transportation which effect food availability (Hakim, Dilya, and Suryobuwono nd). The population of this research is the perpetrators of freight companies and the citizen of Jakarta in 2020. The sampling technique in this study uses a random sampling technique and a total sample of 412 respondents is obtained.

Data analysis techniques in this study uses a multiple linear regression analysis methods. The variables in this study consist of two independent variables, they are land transportation policy ( $X_1$ ), logistics policy ( $X_2$ ), while the dependent variable (dependent) is food availability ( $Y$ ). Descriptive analysis is used to analyze a respondent's response to Transportation and Logistic Policy and responsiveness to the dependent variable, that is the Distribution of Food Tests partially ( $t$ -test). It is done to determine the effect of partially (individually) independent variables consisting of reliability, assurance, physical evidence, empathy, and responsiveness to the dependent variable; it is Food Distribution. Simultaneous testing (Test  $f$ ). The following is to see how the influence of all independent variables to the dependent variable:



**Figure 1. Conceptual Framework**

### Discussion and Result

#### 1. Characteristics of Respondents

The characteristics of the respondents in this study are the citizen in Jakarta, logistic business operators and food buyers. The study uses the Slovin calculation method with a 5% error margin and the sample is 400 people. The sample is taken using random sampling technique which results in 412 people as respondents. The characteristics of the average respondent are over 20 years old and less than 40 years old. For the profession of respondents, the average professions are private employee earning between Rp 3,000,000 - Rp 4,999,999.

#### 2. Validity test

A validity test is used to find out whether a questionnaire is valid or not. A questionnaire is stated to be valid if the questions on the questionnaire can reveal food availability. A significant test is done by comparing the value of  $\bar{r}$  arithmetic with  $r$  table. If  $\bar{r}$  arithmetic  $>$   $r$  table, and it

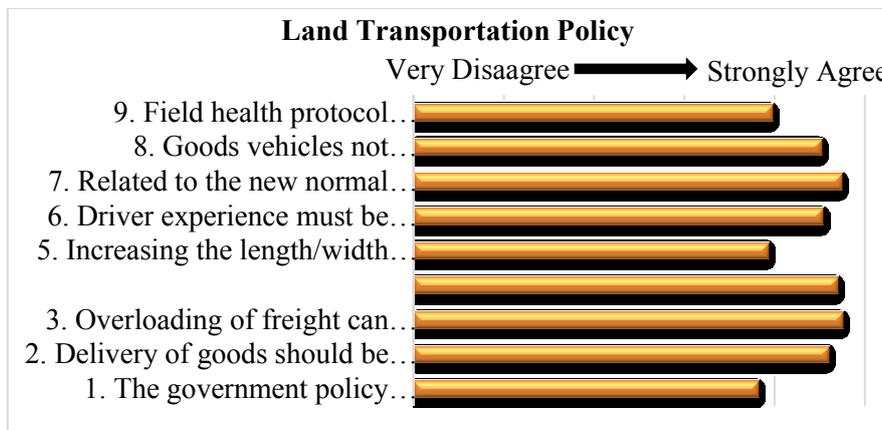
is positive, then the variable is valid whereas if  $r$  arithmetic  $< r$  table, then the variable is invalid (Ghozali 2011).

3. Reliability Test

A reliability test is a tool to measure a questionnaire which is an indicator of the variable. A questionnaire is stated to be reliable if a person's answer to a question is consistent or stable. To test reliability, Cronbach Alpha techniques is used. A constructor variable is mentioned to be reliable if it gives a value  $> 0.70$  (Ghozali 2011). The test results can be explained below:

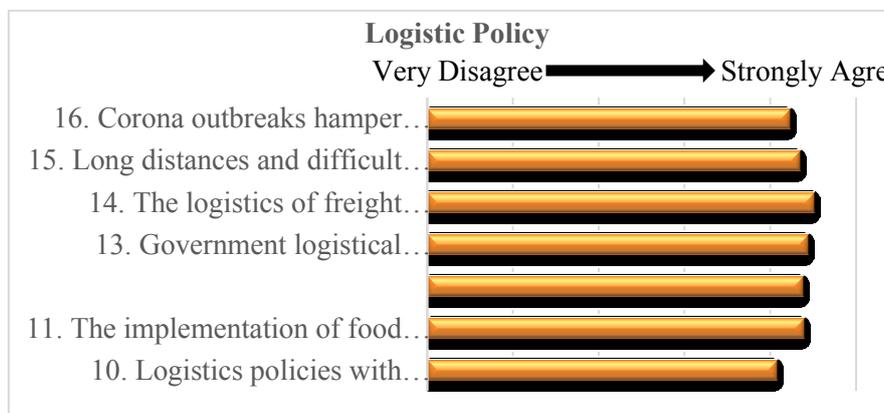
From the results of the reliability test output, the Cronbach Alpha value of each variable meets the criteria; the result of Cronbach Alpha is higher than 0.70 or  $> 0.70$  (Ghozali 2011), so it can be concluded that the measuring instruments used in this study are reliable.

**Table 1. Perception of Land Transportation Policy**



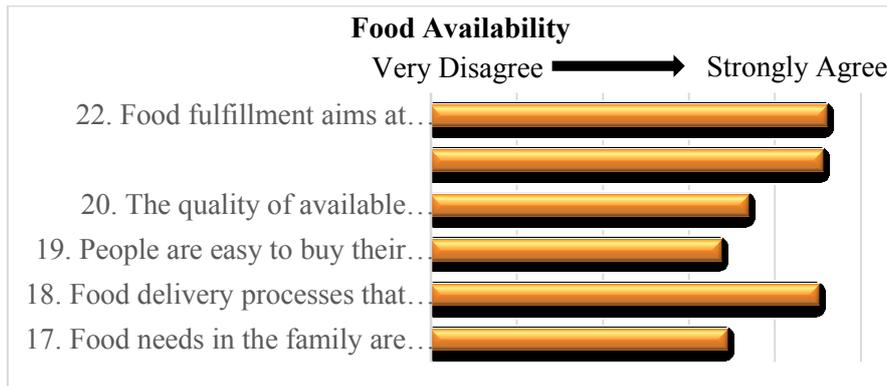
It can be interpreted that every logistic transport vehicle that uses a health protocol are carried out according to the applicable regulations for the availability of food. However, with the focus of government policy on passenger transportation to minimize the transmission of Covid-19 goods shipping beyond capacity again occurs due to lack of supervision. Freight should not add length or width to the body at the time of delivery because this can endanger other drivers. Regarding to the delivery of food during the new normal period, it should be experienced and qualified food transport drivers and their health condition checks regularly to enforce health protocols so that they are not subject to sanctions.

**Table 2. Logistics Policy Perceptions**



At the time of this new normal, corona outbreaks the process of sending food logistics to Jakarta. Long distances and the risk of transmission of the virus are one of the obstacles that must be anticipated so that food is delivered quickly and hygienically. The government does not remain silent by giving priority to the transportation of goods, especially food, and actively helping the community to meet their needs by distributing free food supplies and it is expected to be able to meet the daily needs of the community.

**Table 3. Perceptions of food availability**



At the time of new normal, food needs in the household are enough and have good quality for physical health. Food conditions at the time of delivery of goods must be sterile and in good condition and not contaminated by viruses. Good food quality provides good health and nutrition for the community. Moreover if food is available, it will be easy for people to buy and meet the needs of the community. High community needs can effect the full nutritional status of the community.

4. Multiple Linear Regression Analysis

Basic Making Decision

A. T Test

1. If the sig. value < 0.05 then there is the influence of the variable X on Y.
2. If the sig .value > 0.05 then there is no effect of the variable X on Y.

B. F Test

1. If the sig value < 0.05 then there is the effect of variable X simultaneously on the Y variable.
2. If the sig value > 0.05 then there is no effect of the variable X on the variable Y

**Table 4. Dependent Variable: Food Availability**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	6.384	1.317		4.849	.000
Land Transportation Policy When New Normal	,206	.046	.262	4.511	.000
Logistics Policy When New Normal	.318	.053	,348	5.981	.000

The result shows that the significant value of variable  $X_1$  (Land Transportation Policy When New Normal) is 0,000 that it is smaller than 0.05 and  $X_2$  (Logistics Policy When New Normal) is 0,000 which is less than 0.05. These results provide a conclusion that variable  $X_1$  has a significant positive effect on Y (Food Availability) as well as  $X_2$  (Logistics Policy When New Normal) has a significant positive effect on Y. It is stated that the significant value for the effect of  $X_1$  and  $X_2$  simultaneously on Y is  $0,000 < 0.05$ , so it can be concluded that the two variables;  $X_1$  and  $X_2$  influence simultaneously on Y.

The result of multiple linear regression analyses explains the correlation value (R) of 0.565. The  $R^2$  or R square values are contained in the model summary is 0.320. This shows that the contribution of the influence of  $X_1$  and  $X_2$  to Y is 32% while the remaining 68% is influenced by other variables that are not completed.

It can be interpreted that in the new normal period, the policy of sticker installation and the implementation of food transportation by involving the expertise of the driver have a positive effect on the availability of food for the citizen of Jakarta. Besides, logistics delivery with the application of health protocols can maintain the quality of food available at new normal times and the availability of hygienic food has a positive effect on public health.

### Conclusion

The results of data analysis above conclude that the variable  $X_1$  (Land Transportation Policy When New Normal) and variable  $X_2$  (Logistics Policy When New Normal) have positive relationship with Food Availability, which means that the availability of food for the citizen of Jakarta during the new normal period is fulfilled and is supported by land transportation policy and logistics policy.

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