The Strategy of Strengthening Micro, Small, and Medium Enterprises (MSMEs) in DKI Jakarta Post-Pandemic Covid-19

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Abstract
The number of MSMEs from the Jakarta Government's Large-Scale Social Collaboration Program (KSBB) seen on the website corona DKI Jakarta are 3,218 MSMEs and divided into 3 types of MSMEs, namely Culinary MSMEs, Clothing MSMEs, and Craft MSMEs. This research uses qualitative descriptive analysis methods focused on MSME business empowerment development strategies. This study to analysis for the relationship between each of the influencing factors and UMKM was conducted using correlation analysis based on purposive samples and literature studies from statistical data at the Central Statistics Agency of the Republic of Indonesia. The findings show that the spatial model is more accurate than classic regression and can determine the relationship between MSMEs and other variables. The Correlation R^2 value with Classic regression and Spatial Lag is 66.2% and 70.1% respectively and the MSMEs are affected positively by variables Location of mentoring MSMEs and the Number of Traders. It is also the same result as the scatterplot diagram. The local government of Jakarta can determine the right strategy in locations that must get more attention to MSMEs’ growth in the future.

Keywords: MSMEs, spatial regression, economic, entrepreneurs, post Pandemic.

INTRODUCTION

Small and Medium Enterprises in DKI Jakarta have a wide scope covering all sectors of economic activity, while what we usually find in other cities and provinces in Indonesia the small industrial sector has considerable business opportunities. DKI Jakarta, the percentage of small business entrepreneurs is worth less than large industries in economic growth in DKI Jakarta. As of publication (Bappenas, BPS Statistic Indonesia, 2013), DKI Jakarta is home to 1.1 million MSMEs who contribute to the economy and provision of the needs of the people of Jakarta as well as the driver of 94% of the city’s economic wheels. In 2018, the development of MSMEs reached 64.2 million units and contributed 60.3% of Indonesia’s total gross domestic product (GDP). MSMEs can also absorb 97% of the total workforce and 99% of the total employment (Krisnawati, 2018). (Caraka et al., 2021)

Micro, small, and medium enterprises (MSMEs) are productive businesses owned by individuals and or individual businesses that meet the criteria for micro-enterprises stipulated in this Law. A small business is an independent productive economic enterprise operated by an individual or business that is not a subsidiary or branch. (Hubeis et al., 2015). Large-Scale Social Restrictions Social Assistance or PSBB social assistance is an assistance program from the DKI Jakarta Provincial Government for vulnerable families affected by Covid-19 in Jakarta. This assistance was distributed during the PSBB period with funding sources from the DKI Jakarta APBD and the Ministry of Social Affairs of the Republic of Indonesia. A study (Hamid & Susilo, 2015) a medium-sized business is a stand-alone productive economic venture, conducted by an individual or business entity that is not a subsidiary or branch of a company owned, controlled, or becomes a part either directly or indirectly with a small business or large business with the amount of net worth or annual sales proceeds as stipulated in this law. The government is also responsible (Sack, 2006) for the sustainability of small and medium-sized micro-enterprises (Suwarni & Handayani, 2021).

MSMEs, namely Culinary MSMEs, Clothing MSMEs, and Craft MSMEs. The percent of number of culinary MSMEs is 88%, MSMEs clothing as much as 7%, and MSMEs craft
as much as 5% of the total number of MSMEs. Data on the number and type of MSMEs based on sub-districts in DKI Jakarta can be seen in figure 1. below.

Figure 1 Number and type of MSMEs based on Sub-districts in Jakarta

Based on the graph above shows that there is a dominance of culinary MSMEs in every sub-district in DKI Jakarta. This is as shown on the graph, where the largest number of culinary MSMEs is found in the Duren Sawit sub-district with the number of 162 culinary MSMEs, while the lowest number of culinary MSMEs there are in Menteng sub-district at the number of 6 MSMEs. According to (Nczak et al., 2020), the MSME sector includes various business sectors, such as agriculture, mining and quarrying, manufacturing industry, electricity, gas, and clean water, buildings, trade, hotels and restaurants, transportation and telecommunications, finance, leasing and services, and other services.

Based on the description that has been explained, this study will analyze factors that affect the number of MSMEs per sub-district in Jakarta through spatial interactions that will be the subject of study is the existence of dependencies between regions (Heyuan et al., 2020). One way to model the existence of spatial dependencies (Hawkings et al., 1999) and (Anselin, 2003) is the Spatial Autoregressive Model (SAR) which assumes dependent variables in a region related to other region-dependent variables. Another way is through the Spatial Error Model (SEM) where it is assumed that in the error model of a region with another region there is a spatial correlation. (Purwoko et al., 2022) developed a model that assumes that the dependent variables of a region are also related to other region-independent variables. Model specifications and estimation procedures for spatial econometric models of panel data have been widely developed by experts including (Anselin et al., 2006), (Oliver & Gujarati, 1993). In this study, the parameter estimation procedure used as a reference is the procedure of estimating parameters of spatial model panel data (Elhorst, 2011). (Zelinsky, 1929), (Hawkings et al., 1999), and (Paul Elhorst et al., 2011) outlined the estimation of parameters in sar and SEM models involving fixed effects panel models and random effects with maximum likelihood estimation methods.

The existence of MSMEs in a region can not be separated from the influence of MSMEs around it, interaction factors through neighboring relationships indicate spatial influences (Tambunan, 2019). Looking at indicators that affect spatial influence in several periods becomes important to model the existence of MSMEs in DKI Jakarta. Therefore, the formulation of the problem in this study is how the results of spatial model estimates of data on indicators affect the percentage of MSMEs in Jakarta (Elisabeth Kramer et al., 2021).

The goal to be achieved from research is to analyze the relationship between each of the factors that affect the development of MSMEs and to obtain information about the Percentage of MSMEs factors that affect the existence of MSMEs in Jakarta and get model estimates on factors that affect the percentage of MSMEs in Jakarta using spatial data.
METHOD

This research uses qualitative descriptive analysis methods focused on MSME business empowerment development strategies based on purposive samples and literature studies from statistical data at the Central Statistics Agency of the Republic of Indonesia. Descriptive statistics provide information only about the data possessed and in no way draw any inferences or conclusions about their larger parent data groups. Exploratory Spatial Data Analysis (ESDA) is used to describe and visualize spatial distribution, identify atypical locations, and find spatial cluster patterns, and other forms of spatial instability or spatial inaccuracy (2005). Positive spatial autocorrelation occurs when the same value occurs in adjacent regions, indicating clustering. Negative spatial autocorrelation occurs when different values occur in adjacent regions, indicating dispersion. The test to find spatial autocorrelation is using the Moran index (Moran's I). Moran's I is commonly used to measure global spatial autocorrelation. This test can be applied to detect deviations from spatial. Starting from this random will show spatial patterns, whether clusters or trends based on space.

Moran's scatterplot is divided into four quadrants suitable for four patterns of a local spatial collection of each neighboring region. If the monitoring is in quadrants I and III then there are indications of clustering which means that there is a positive spatial autocorrelation between the observed region and other regions, while if the Ramadan is in quadrants II and IV indicates dispersion which means there is a negative autocorrelation between the observed region and the other region (Kusviansyah, 2017). Before estimating the parameters of the model with a spatial econometric approach, the initial stage is to test the existence of spatial dependency with an appropriate statistical test. A study (Lesage, 1999) One statistical test to find out the existence of spatial dependency is to use of the Lagrange Multiplier (LM) test and robust Lagrange Multiplier test. To find out if a model is said to be a spatial lag model using the LM spatial lag test while to find out the spatial error model using the LM spatial error test.

a. Data Source

This study uses data from the Central Bureau of Statistics of DKI Jakarta in 2021. The number of MSMEs from the Jakarta Government's Large-Scale Social Collaboration Program (KSBB) seen on the website Corona DKI Jakarta and Jakarta Open Data 2021 as primary and secondary data objects analysis of research.

b. Research Variable

The variables used are divided into two types, namely predictor variables and response variables. In this study, the number of MSMEs was used as a response variable. While the predictor variables used are as many as four predictor variables.

Table 1. Research Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Symbol</th>
<th>Code</th>
<th>Explanation</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>Y₁</td>
<td>MSMEs</td>
<td>MSMEs (Number of Small and Medium Micro Enterprises)</td>
<td>Person</td>
</tr>
<tr>
<td></td>
<td>X₂</td>
<td>Area</td>
<td>Percentage of Area</td>
<td>Percent</td>
</tr>
<tr>
<td></td>
<td>X₃</td>
<td>Population</td>
<td>Percentage of Population</td>
<td>Percent</td>
</tr>
<tr>
<td>Predictor</td>
<td>X₄</td>
<td>Traders</td>
<td>Percentage of Traders</td>
<td>Percent</td>
</tr>
<tr>
<td></td>
<td>X₅</td>
<td>Location</td>
<td>Location of Mentoring MSMEs</td>
<td>Location</td>
</tr>
</tbody>
</table>

Source: Author, 2022
RESULTS AND DISCUSSION

Results

Data Explorations

Characteristics of the number of MSMEs that are suspected to affect the exclusivity of the number of MSMEs in the surrounding sub-districts can be known by using descriptive statistical analysis. The information obtained from Figure 3 is the percentage of the number of MSMEs per sub-district in DKI Jakarta at most or can be seen with darker image colors in Duren Sawit District of East Jakarta with the number of MSMEs as many as 179 participants and the lowest number of MSMEs are in Menteng District of Central Jakarta with participants as many as 6 MSMEs or marked with lighter colors.

Figure 2. Distribution of MSMEs per Sub-District in Jakarta 2021

Subdistricts in Regions in Jakarta with MSMEs potentially have high development along with various services and become the center of main services. According to (Nczak et al., 2020) The analysis using the classic regression model shows that the MSMEs can be affected by several factors. Table 3 shows that MSMEs are affected positively by the Location of mentoring MSMEs and the Number of Traders. On the other hand, MSMEs is affected negatively by the population and Number of Area. The result shows that the correlation is robust with $R^2 = 0.662$ and all of the probability value is below 0.1 as the significance for the data.

Table 2 shows that Moran’s I test has a significant and positive result. It means that the MSMEs in a Sub-district are influenced by the value of the variable from its sub-district as well as the spatial lag from other regions that are close and have the same characteristics. The table also shows that Lagrange Multiplier (Lag) is significant. However, the robust probabilities for the model are different and it shows that Robust LM (lag) is more significant than Robust LM (error). The use of Spatial Lag shows that there is a spatial dependency of MSMEs in the Sub-districts of Jakarta.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>W_MSMEs</td>
<td>-0.391552</td>
<td>0.198296</td>
<td>0.04831*</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>50.8424</td>
<td>20.6509</td>
<td>0.01382*</td>
</tr>
<tr>
<td>Location</td>
<td>5.67815</td>
<td>1.20446</td>
<td>0.00000*</td>
</tr>
<tr>
<td>Population</td>
<td>-0.851458</td>
<td>4.32624</td>
<td>0.84397</td>
</tr>
<tr>
<td>Area</td>
<td>2.19849</td>
<td>2.71687</td>
<td>0.41840</td>
</tr>
<tr>
<td>Traders</td>
<td>6.82519</td>
<td>2.78483</td>
<td>0.01425*</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.701</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

significance at * $p<0.05$
This study model equation as the following formula:

\[ MSME_i = 50.8424 + 5.67815.\beta_1 i - 0.851458.\beta_2 i + 2.19849.\beta_3 i + 6.82519.\beta_4 i \]

(1)

Where:
- MSMEs : MSMEs (Number of Small and Medium Micro Enterprises)
- \( \beta_1 i \) : Location of Mentoring MSMEs
- \( \beta_2 i \) : Percentage of population
- \( \beta_3 i \) : Percentage of Area
- \( \beta_4 i \) : Percentage of Traders

Compared to the Classic Regression (Table 3), the Spatial lag model (Table 5) has different results such as the R\(^2\) value with Classic regression and Spatial Lag are 66.2\% and 70.1\% respectively. This means that the spatial model is more accurate than classic regression and can determine the relationship between MSMEs and other variables. However, two variables population and number of the area have no significance with MSMEs in this model. The Spatial lag model interprets the mean of independent variables that surround one region or city increasing by 1, it will add or reduce the coefficient in the variables. For example, if the Location of Mentoring MSMEs is by 1, the number of MSMEs of all sub-district will add to 5.678 and if the traders add by 1, the MSMEs in Jakarta will add to 6.82519.

**Scatterplot MSME response variables with predictor variables**

The relationship between dependent variables i.e. the number of MSMEs with each independent variable.

![Scatterplot between dependent variables with each independent variable](image)

**Figure 3. Scatterplot between dependent variables with each independent variable**

From the scatterplot diagram, it can be identified that the Location of mentoring MSMEs variable and traders have a positive influence on the percentage of MSMEs in the DKI Jakarta area as a whole. As for variables the area and population have a negative influence or tend not to have relationships between variables.

**Discussion**

**a. Government supporting system factors of MSMEs to the Growth rate in Jakarta**

Based on the result two variables influence the growth of MSMEs in Jakarta. There is a Variable location of mentoring MSMEs and the Number of Traders MSMEs themselves. The strategic strategy of the development of MSMEs in Jakarta is as follows.
b. Additionally the location of Mentoring MSMEs

This study analyzed the distribution of the growth of MSMEs in Jakarta in association with social, economic, and government supporting systems in Jakarta (Zhou, 2014). Innovative contributions had been achieved by every stakeholder (Krisnawati, 2018). These findings could offer practical insights for urban development. The local government of Jakarta can determine the right strategy in locations that must get more attention to anticipate and minimize the occurrence of MSMEs growth in the future. As (Suwarni & Handayani, 2021) stated that to achieve the goal of realizing equitable development through the expansion of work and increasing income in the MSME sector, there needs to be a government policy that can be the foundation of the development of the MSME sector so that the MSME sector can freely increase its potential and can also MSMEs can actively participate in the national development process, especially in economic activities in Indonesia. Government support for the success of MSMEs is realized in the form of policies, procurement of facilities, and another stimulus to grow the business climate (Stein et al., 2013). Aspects built through policy include funding, facilities, infrastructure, business information, partnerships, licensing, business opportunities, promotion, and institutional support. With the role of the government in developing MSMEs, it is expected that business actors can be the basis of strategies to foster healthy business competition. In addition, the assistance and coaching strategy of the Government in the marketing of MSMEs through exhibitions. Currently, many exhibition events are carried out by various companies and also exhibitions held by the Government in support of MSME programs. This program can provide great benefits for small businesses because most SMEs have difficulty in marketing their products given the limited cost and limited market promotion capabilities. A study (Syuhada & Gambett, 2013) while the assistance of MSMEs through online media is one way to get access to sales in the era of Industrial Reform 4.0.

c. Increasing the number of Traders in MSMEs

The city of Jakarta has great potential to be developed as a food or culinary MSME center. We have seen that many micro and small firms are engaging in innovation in a way consistent with our simple model, and that owner characteristics, as well as firm characteristics, help explain this innovation (de Mel et al., 2021). This is in line with the number of MSMEs based on the type by the data above. Especially in some districts that have tourism potential. The city of Jakarta which has the title of "Halal City", especially the food business has become a special attraction, especially for tourists both domestically and internationally.

The strategic plan (Renstra) of DKI Jakarta Province has provided ample space for MSME actors by trying to encourage the development of MSMEs, superior creative economy, strengthening MSMEs through improving competence and quality of human resources, expanding capital aspects, business network/promotion to provide information on MSME products. One of the potentials that can be grown in Jakarta is culinary tourism (Hubeis et al., 2015). Generally, the culinary always brings up various types of creative and favorite foods that pay attention to various ages ranging from the segmentation of young people to the elderly. Food MSMEs in Jakarta, in general, are very diverse including products that can be eaten directly on the spot and products that can be stored and carried. By looking at the potential that is local government must better understand the potential that exists in each sub-district in DKI Jakarta to further be developed not only at the national level but to be able at the international level.

This research is important because it significantly contributes to the support of MSMEs are the largest group of economic actors in the Indonesian economy and become the safety valve of the national economy. This business sector contributes greatly to national development. For that, MSMEs need a directed and systematic management strategy so that they can develop into a more shining business.
CONCLUSION

The findings show that the spatial model is more accurate than classic regression and can determine the relationship between MSMEs and other variables. The Correlation $R^2$ value with Classic regression and Spatial Lag is 66.2% and 70.1% respectively. This means that the spatial model is more accurate than classic regression and can determine the relationship between MSMEs and other variables. The MSMEs are affected positively by variables Location of mentoring MSMEs and the Number of Traders. The result with the scatterplot diagram identified that the Location of mentoring MSMEs variable and traders have a positive influence on the percentage of MSMEs in the DKI Jakarta area as a whole. The local government of Jakarta can determine the right strategy in locations that must get more attention to anticipate and minimize the occurrence of MSMEs growth in the future. The city of Jakarta has great potential to be developed as a food or culinary MSME center. MSMEs need a directed and systematic management strategy so that they can develop into a more shining business.

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