Tourism Industrialization Model and the Effects on the Income, Employment Opportunity, and Economy in Sumenep City, Beach 9, Gili Genting District

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Abstract
Urbanization in Indonesian increases quite significantly so that the tendency of the broadening economical social problems in many cities in Indonesia can cause national problems and become the social problems for Indonesian nation. Industrialization cannot be separated from the effort of improving the quality of human resource and the utilization of nature resources. In general, the relationship between development and industrialization. This study was expected to discover and develop SEM model where income distribution affected industrialization in Gili Genting District concentrated in three villages Bon Baru Village, Bringsang Village, and Jate Lombang Village. This study uses quantitative methods and SEM (Structural Equation Modeling) analysis. we find that the Income Distribution affected Industrialization.

Keywords: Industrialization, Spatial Dispersion, Income Distribution, Employment Opportunity, Economy

INTRODUCTION
Industry development (industrialization) also contributes to the occurrence of social change and value shift in society of the city. One of the value shifts which occurred to the society was the shift of family ties value in families of the community members. (Borden et al., 2017; Mahmudah, 2019; Ning & Yan, 1995; Steinfield et al., 2019). Current family ties value is not that strong compared to the previous period. The shift of kinship values in the society can also be seen from the conflict of fighting over the area (Smith, JH, 1962). The fight among the city members was about the competition to defend their own area. The effect of this fight was that the kinship values among the community members was getting shifted and the society did not care about each other anymore (Soonsan & Sukahbot, 2019). As the result, the kinship system was getting faded (Marques et al., 2017). Each of the community member started to have the attitude of indifferent towards each other (Pandya, 2003).
The appearance of industry region in an area such as Bon Baru Village area, Rembang Industrial area in Bon Baru Village, Tourism Industry in Gili Genting District Gianyar Regency Jate Lombang Village and Gili Genting District Tanjung Selor Regency in Bringsang Village were considered to bring positive and negative effects in the surrounding community's life. The examples of the positive effects were: (1) the appearance of industry could open employment opportunity for the surrounding communities; (2) it opened employment opportunity in informal sector; (3) it added the Original Local Government Revenue. The negative effects were: (1) it contributed to the appearance of industrial noise, pollution, and waste which were dangerous for the environment; and (2) it contributed to cultural contact which could cause various social problems.

There are four main effects of industrialization in the community life, they are: (1) industrialization influenced the pattern of employment opportunity; (2) industrialization affected on the pattern of family life; and (3) industrialization affected on the pattern of human resource development and the industrialization effect on family psychology (Afifah et al., 2018). Industrialization process can be understood through the development concept because the meanings of development and industrialization are often considered as the same. The development concept is dynamic because the concept can change according to the coverage. If the development is connected to each world development effort, then the development will be the world development effort (Khorev, 1974). Industrialization as the process and industry development is in one path of activity, they basically function to improve the people's quality of life and prosperity (Moscardo et al., 2001). No similar research has been conducted in the village where this research is located. So that this research is expected to develop a new model in the development of local industries.

RESEARCH METHOD

This study applied structural equation modeling (SEM) approach to find out how far the correlation between hypothesis and the social reality of the three spatial dispersion problems (income distribution, employment opportunity, and economy). This research is a quantitative research with the analytical method chosen to analyze the data is the SEM (Structural Equation Model) analysis. A hypothesis using the Structural Equation Modeling data analysis tool from the AMOS 22 statistical package as a structural equation model, AMOS 22 is often used in marketing and strategic management studies (Bacon in Ferdinand 2006). Located at Gili Genting District concentrated in three villages. Bon Baru Village, Bringsang Village, and Jate Lombang Village. SEM enables plural measurement to be correlated to single latent construct. SEM covers covariant matrix structure measurement or it can also be known as covariant structure analysis. Once the parameters' model is estimated, the model produced is covariant matrix, then, can be compared to covariant matrix which is originated from the empirical data. If both of the matrices are consistent one to another, the structural equation model can be considered as the acceptable explanation for the correlations between those measurements (Chung et al., 2009). What is actually the structural equation modeling (SEM)? There are some definitions of SEM, one of them is as follows: Structural equation modeling, which in this book will be called as SEM, is a statistical modeling technique which is very cross sectional, linear, and general. What included in this SEM are factor analysis, path analysis, and regression. Another definition mentions structural equation modeling (SEM) as multivariant analysis technique which is general and very useful which includes specific versions in other analysis methods as the specific cases. The next definition states that structural equation modeling (SEM) is a statistical technique which is used to build and test the statistical models which are usually in the form of...
cause-effect models (Chung et al., 2009). SEM is actually a hybrid technique which includes confirmatory aspects from factor analysis, path analysis, and regression which can be considered as special case in SEM. A model with the fewer indicators in each factor can have higher likelihood appearance compared to a model with more indicators in each factor (Botonaki et al., 2009). The maximum likelihood function is not the likelihood measurement but it is used as a component from the others. This function reflects the differences between covariant matrix and the predicted matrix by using the model (Jung et al., 2017). The function is as follows:

1. Baseline log likelihood is a likelihood when there is no independent variable and there is only constant in the likelihood.
2. Model log likelihood is a log likelihood when independent variables are also included in the model. The bigger the difference of base LL minus by the model LL, the more the researcher is persuaded that all independent variables really give contribution to the model more than the random number.

The likelihood measurement is based on the predicted and observed covariant (Goodness-of-fit tests based on predicted vs. observed covariances). The measurement of this set of likelihoods is based on the model likelihood on the moment-sample moment, which means to compare the observed covariant matrix and the estimated matrix with the assumption that the tested model is correct. These measurements, therefore, use what is called as conventional discrepancy function (Smith et al., 2001). The likelihood measurements by comparing the given model and the alternative model (Goodness-of-fit tests comparing the given model with an alternative model). See table 1 for Standardized Regression Weights.

### Tabel 1. Standardized Regression Weights

<table>
<thead>
<tr>
<th>Estimateg</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND1 ← Industrialisasi</td>
<td>.543</td>
</tr>
<tr>
<td>IND2 ← Industrialisasi</td>
<td>.852</td>
</tr>
<tr>
<td>IND3 ← Industrialisasi</td>
<td>.812</td>
</tr>
<tr>
<td>IND4 ← Industrialisasi</td>
<td>.765</td>
</tr>
</tbody>
</table>

**RESULTS AND DISCUSSION**

**Equation Model Structure (Bon Baru Village)**

The research of internal grant of LPPM UTM 2021 was conducted to examine the correlation among the constructs of Industrialization, Income Distribution, Economy, and Employment Opportunity in the industrial area of Bon Baru Village.

**Equation Model Estimation**

After confirmatory analysis was done, the next step was to conduct full model structural estimation which only included the indicators which had been tested and the confirmatory indicators.
From the data processing in figure 1, it could also be seen that each indicator or dimension shaping each latent variable showed a good result, that was the value of CR was above 1.96. All of the loading factor values (standardized estimate) for each indicator was above 0.05. The probability of each indicator was also under 0.05. Referring to the results, it could be said that the indicators shaping the construct latent variables showed as the strong indicator in latent variable measurement.

Next, based on this confirmatory factor analysis, the model of this research could be used for the future analysis with modifications or adjustments. Then, statistical test should be done regarding the correlation among the variables which later could be used as the basis to answer the proposed research hypotheses. The statistical test of data processing result using SEM was done through the value of probability (P) and Critical Ratio (CR) of each correlation among the variables. However, to obtain good model, there should be a test on deviation problems on SEM assumption. See Table 2.

<table>
<thead>
<tr>
<th>Goodness of Fit index</th>
<th>Cut-Off Value</th>
<th>Analysis Results</th>
<th>Evaluation Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square</td>
<td>&lt;792.92</td>
<td>183.109</td>
<td>Well</td>
</tr>
<tr>
<td>Probability</td>
<td>≥0.05</td>
<td>0.00</td>
<td>Marginal</td>
</tr>
<tr>
<td>GFI</td>
<td>≥0.90</td>
<td>0.827</td>
<td>Marginal</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤2.00</td>
<td>1.686</td>
<td>Well</td>
</tr>
<tr>
<td>CFI</td>
<td>≥0.90</td>
<td>0.948</td>
<td>Well</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥0.90</td>
<td>0.761</td>
<td>Marginal</td>
</tr>
<tr>
<td>TLI</td>
<td>≥0.90</td>
<td>0.935</td>
<td>Well</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤0.08</td>
<td>0.089</td>
<td>Marginal</td>
</tr>
</tbody>
</table>
The Analysis of Data Normality SEM Assumption

Normality evaluation was done by using the criteria of critical ration skewness value as much as ± 2.58. The data could be concluded to be in normal distribution if the critical ratio skewness value was below 2.58. The result of data normality output can be seen in the following Table 2.

H1: Income Distribution Affected Industrialization

Estimation parameter for the effect measurement of Income Distribution on Industrialization showed that the value of CR was -1.972 with the probability of 0.05 was under (or equal to) 0.05. The value met the requirement for H1 acceptance that was the probability was smaller (or equal to) 0.05. It could be concluded that Income Distribution affected Industrialization in Gili Genting Regency, Bon Baru Village.

H2: Employment Opportunity Affected Industrialization

Estimation parameter for the effect measurement of Employment Opportunity on Industrialization showed that the value of CR was 5.015 with the probability of 0.000 was under 0.05. The value met the requirement for H1 that was the probability was smaller than 0.05 and the CR was above 1.96. Thus, it could be summarized that the variable of Employment Opportunity affected Industrialization in Gili Genting Regency, Bon Baru Village.

H3: Economy Affected Industrialization

Estimation parameter for the effect measurement of Economy on Industrialization showed that the value of CR was 2.745 with the probability of 0.006 was under 0.05. The value has met the requirement for H1 acceptance that was the probability was smaller than 0.05 and the CR was above 1.96. Thus, it could be concluded that Economy affected Industrialization in Gili Genting Regency, Bon Baru Village.

Equation Model Structure (Bringsang Village)

The research of internal grant of LPPM UTM 2021 was conducted to examine the correlations among the constructs of Industrialization, Income Distribution, Economy, and Employment Opportunity in the area of Bringsang Village. According to the available theory review, correlation model among the constructs was proposed as viewed in the following Figure 2.

Next, based on this confirmatory factor analysis, the model of this research could be used for the future analysis with modifications or adjustments. Then, statistical test should be done regarding the correlation among the variables which later could be used as the basis to answer the proposed research hypotheses. The statistical test of data processing result using SEM was done through the value of probability (P) and Critical Ratio (CR) of each correlation among the variables. However, to obtain good model, there should be a test on deviation problems on SEM assumption. See table 3.
Figure 2. full model structural (Standardized estimates)

Table 3 The Result of SEM Model Eligibility testing

<table>
<thead>
<tr>
<th>Godness of Fit index</th>
<th>Cut-Off Value</th>
<th>Analysis Results</th>
<th>Evaluation Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square</td>
<td>≤ 792.92</td>
<td>161</td>
<td>Well</td>
</tr>
<tr>
<td>Probability</td>
<td>≥ 0.05</td>
<td>0.00</td>
<td>Marginal</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0.90</td>
<td>0.849</td>
<td>Marginal</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤ 2.00</td>
<td>2</td>
<td>Well</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.9</td>
<td>0.923</td>
<td>Well</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0.90</td>
<td>0.791</td>
<td>Marginal</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0.9</td>
<td>0.905</td>
<td>Well</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.08</td>
<td>0.077</td>
<td>Well</td>
</tr>
</tbody>
</table>

The Analysis of Data Normality SEM Assumption

Normality evaluation was done by using the criteria of critical ration skewness value as much as ± 2.58. The data could be concluded to be in normal distribution if the critical ration skewness value was below 2.58. The result of data normality output can be seen in the following Table 3.

H1: Income Distribution Affected Industrialization

Estimation parameter for the effect measurement of Income Distribution on Industrialization showed that the value of CR was -1,128 with the probability of 0.259 was under (or equal to) 0.05. The value did not meet the requirement for H1 acceptance that was the probability was smaller (or equal to) 0.05.
It could be concluded that Income Distribution did not affect *Industrialization* in Gili Genting Regency, Bringsang Village.

**H2: Employment Opportunity Affected Industrialization**

Estimation parameter for the effect measurement of Employment Opportunity on *Industrialization* showed that the value of CR was 1.176 with the probability of 0.240 was above 0.05. The value did not meet the requirement for H1 that was the probability was smaller than 0.05 and the CR was above 1.96. Thus, it could be summarized that the variable of Employment Opportunity did not affect *Industrialization* in Gili Genting Regency, Bringsang Village.

**H3: Economy Affected Industrialization**

Estimation parameter for the effect measurement of Economy on *Industrialization* showed that the value of CR was 3.239 with the probability of 0.001 was under 0.05. The value has met the requirement for H1 acceptance that was the probability was smaller than 0.05 and the CR was above 1.96. Thus, it could be concluded that Economy affected *Industrialization* in Gili Genting Regency, Bringsang Village.

**Equation Model Structure (Jate Lombang)**

The research of internal grant of LPPM UTM 2021 was conducted to examine the correlation among the constructs of Industrialization, Income Distribution, Economy, and Employment Opportunity in the industrial area of Jate Lombang. According to the available theory review, correlation model among the constructs was proposed as viewed in the following Figure 3.

![Figure 3. full model structural (Standardized estimates)](image-url)
Model eligibility testing was seen by comparing the analysis results and the requirements of the cut off value. The cut off value can be seen in the following Table 4.

**Table 4. The Result of SEM Model Eligibility Testing**

<table>
<thead>
<tr>
<th>Goodness of Fit index</th>
<th>Cut-Off Value</th>
<th>Analysis Results</th>
<th>Evaluation Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square</td>
<td>&lt; 792.92</td>
<td>163</td>
<td>Well</td>
</tr>
<tr>
<td>Probability</td>
<td>≥ 0.05</td>
<td>0.00</td>
<td>Marginal</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0.90</td>
<td>0.846</td>
<td>Marginal</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤ 2.00</td>
<td>1.67</td>
<td>Well</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.9</td>
<td>0.926</td>
<td>Well</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0.90</td>
<td>0.786</td>
<td>Marginal</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0.9</td>
<td>0.910</td>
<td>Well</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.08</td>
<td>0.078</td>
<td>Well</td>
</tr>
</tbody>
</table>

Next, based on this confirmatory factor analysis, the model of this research could be used for the future analysis with modifications or adjustments. Then, statistical test should be done regarding the correlation among the variables which later could be used as the basis to answer the proposed research hypotheses. The statistical test of data processing result using SEM was done through the value of probability (P) and Critical Ratio (CR) of each correlation among the variables. However, to obtain good model, there should be a test on deviation problems on SEM assumption.

**The Analysis of Data Normality SEM Assumption**

Normality evaluation was done by using the criteria of critical ration skewness value as much as ± 2.58. The data could be concluded to be in normal distribution if the critical ration skewness value was below 2.58. The result of data normality output can be seen in the following Table 4.

**H1: Income Distribution Affected Industrialization**

Estimation parameter for the effect measurement of Income Distribution on Industrialization showed that the value of CR was -2.163 with the probability of 0.031 was under (or equal to) 0.05. The value met the requirement for H1 acceptance that was the probability was smaller (or equal to) 0.05. It could be concluded that Income Distribution affected Industrialization in Jate Lombang.

**H2: Employment Opportunity Affected Industrialization**

Estimation parameter for the effect measurement of Employment Opportunity on Industrialization showed that the value of CR was 5.030 with the probability of 0.00000 was under 0.05. The value met the requirement for H1 acceptance that was the probability was smaller than 0.05 and the CR was above 1.96. Thus, it could be summarized that the variable of Employment Opportunity affected Industrialization in Jate Lombang.

**H3: Economy Affected Industrialization**

Estimation parameter for the effect measurement of Economy on Industrialization showed that the value of CR was 2.574 with the probability of 0.010 was under 0.05. The value met the requirement for H1 acceptance that was the probability was smaller than 0.05 and the CR was above 1.96. Thus, it could be concluded that Economy affected Industrialization in Jate Lombang.
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Discussion

Industrialization cannot be separated from the effort of improving the quality of human resource and the utilization of nature resources. In general, the relationship between development and industrialization is explained by (Hollifield et al., 2009) as: (1) the material for the industrialization process and industry development is in one activity path to increase the community's prosperity; (2) industry development is an effort to improve the quality of human resources and the ability to utilize the natural resources; (3) industry development will stimulate and relate the development of other sectors which can broaden the employment which is expected to increase the community's income and purchasing power; and (4) in industry development, there will be harmful gaps, both economical and non-economical. Industrialization is one of the long-term strategies to guarantee economic growth (Dwyer et al., 2007).

Urbanization in Indonesia increases quite significantly so that the tendency of the broadening economical social problems in many cities in Indonesia can cause national problems and become the social problems for Indonesian nation. By paying attention to the effects, the management of the high urbanization problems in big cities in Indonesia should become a part of national policy. This is because the population growth is too rapid like in big cities in Java Island which stimulates particular problems related to the provision of various facilities and the quality of environment (Myint et al., 2015).

Urbanization, in fact, refers to a process where proportion increase of all population who live in the cities and the suburbs occurs. Historically, urbanization has strong relationship with industrialization process. This occurs when all of the available natural resources are utilized to improve human productivity (industrialization), so there is a growth or surplus in agriculture field or industry (Ashley & Maxwell, 2001). As the result, the population proportion who lives in the cities is growing and grows even more. The growth of population who lives permanently in the cities is, at least, stimulated by economical powers which develop makes the cities become the ideal place to locate factories and employees (Danta, 1987).

Three big problems faced by cities area are: (1) the tendency of over-concentration occurs in certain regions; (2) the development of mixed-use land utilization; and (3) the occurrence of land conversion from open space, conservation land, or green open space into intensive developed areas (houses, industries, offices, infrastructures). Meanwhile, the big problems faced by sub-urban areas are: (1) the occurrence of water infiltration areas into developed areas; (2) the occurrence of urban sprawl physical development; and (3) there are a lot of sleeping areas in sub-urban areas and transition areas (Campolina Diniz & Vieira, 2016).

There is a tendency that economy activities will be centered in an area which has a quite high population's concentration level. This positive correlation between population concentration and economy activities will cause the broadening of population's concentration areas so that it creates what we call as cities area. Here, it can be seen that there is a mutual relationship between economy activities and population's concentration. The economy actors tend to make investment in the areas which already have high population's concentration and provide comprehensive facilities and infrastructures. This is because they can save various costs, for instance the cost for goods and services distribution. The population will tend to come to economy activities center because, in that place, generally they will get the employment opportunity more easily. Therefore, urbanization is a reasonable change process in the effort to increase the prosperity of the population or the community.

If urbanization is a reasonable process of change, why does the urbanization process need to be controlled or directed? There are two reasons why urbanization needs to be managed. First, the government wants to increase the population's proportion who live in the cities area as soon as possible. This is related to the fact that the increase of population in cities area will be strongly correlated with
increase of the nation's economy growth (Ning & Yan, 1995). Data shows that a nation or region with the higher economy level will also have the higher urbanization level. The industrial countries, in general, have urbanization levels above 75 percent (Khorev, 1974). Compared to the current developing countries, their urbanization levels are still around 35 percent up to 40 percent only. Second, the excessive urbanization level, or uncontrolled, can cause various problems to the population. The measurement of the controlled or uncontrolled urbanization is usually known as primacy rate, which, more or less, can be defined as the attraction power of the biggest city in a country or region towards the surrounding cities. The bigger the primacy rate, it shows the unfavorable condition of urbanization process in the city. Unfortunately, the latest data regarding primacy rate in Indonesia is not available (Afifah et al., 2018).

So far, the phenomenon of urbanization in the cities is examined from various science fields such as demography, economy, and sociology. From the perspective of demography, urbanization is a process of population deployment change in a region. The problems related to population density in the cities generally cause the problem of population habitation, employee excess, and finally can hinder development (Treiman, 1970). From the perspective of economy, urbanization is a structural change in the sector of population's livelihood. This can be seen from the village people who leave their jobs in agriculture sector and shift to work as non-agrarian laborer or rough worker in cities (Ding & Zhao, 2011).

From sociology perspective, urbanization is often connected to the population's living attitude in rural environment which, then, is influenced by the cities' life. In this case, the society suffers from doubt whether they can survive from the rural lifestyle or they follow the influence of city lifestyle which they are not familiar with so that it can cause the new sociological problems. From the sociology's view, urbanization can stimulate the appearance of new social layer and becomes the burden of the city because most of them do not succeed in living decently in the cities and will become unemployed or homeless who, at the end, create slum areas or wild dwelling areas (Khorev, 1974). Therefore, the application of the tourism development model requires important attention, especially on three main things, namely increasing people's income, working opportunities and increasing the economy. that in this study has an influence on the industrial model.

CONCLUSION

The industrial model can be used as a tool to measure the increase in job opportunities and economic improvement in an area that already has good development. This study found that income distribution affects industrialization.

REFERENCES


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