Assessing Small Industrial Agglomeration

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Assessing Small Industrial Agglomeration and Economic Growth in South Sumatra

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Abstract*—The relationship between small industrial agglomeration with economic growth is urgent to do in-depth empirical study. The determination of South Sumatra as a center for the development of small and medium industries indicates that economic growth is the effect of small industrial agglomeration. To determine the relationship between the small industrial agglomeration and economic growth used secondary data, such as South Sumatra economic growth data with the scope of the nine districts/ cities. Small industrial agglomeration measured using the Balassa-Hoover index. Consideration of using the nine districts/ cities because that area has diverse industry types. The analysis technique used a simple linear regression with panel data. The result shows that there is a positive relation between small industrial agglomeration and economic growth in South Sumatra, although still relatively weak.

Keywords: small industries, agglomeration, economic growth

I. INTRODUCTION

A small industry plays a social role and politically strategic in Indonesia. The social role of a small industry seen by its ability to absorb labor. While the visible political role of small industrial seen by its capability in the face of external shocks, such as changes in exchange rates and so on. Generally, only a few small industries need capital goods from abroad, so it can survive from the external current changes. During 2009-2019, small industries in Indonesia grew at an average of 3.25 percent per year, with the ability to absorb labor for 97.15 percent. The contribution of small industries to the formation of Indonesia's Gross Domestic Product (GDP) in 2018 amounted to 60.01 percent of total GDP at current prices. As for the share of non-oil and gas exports, overall small industries accounted for 16.02 percent of Indonesia's total non-oil and gas exports, while the share of non-oil and gas exports was only 3.05 percent.

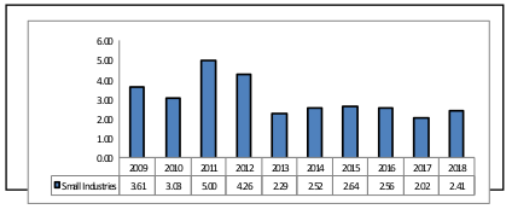

Fig. 1. Trends in the Growth of Small Industries in Indonesia

Small industries also play a large role in its contribution to the economy in the province of South Sumatra. Seen from the development of business units, employment, and the value of small industry investment. Based on labor absorption and small industrial sectors such as food, chemical and building materials, as well as metals and services also dominated employment with an average absorption of 5.45 percent during 2009-2018.

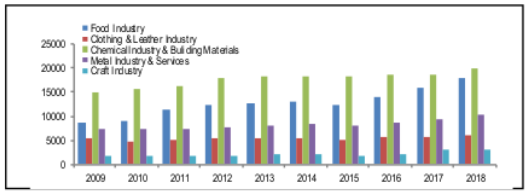

Fig. 2. Labor absorption of Small Industries in South Sumatra, Source: Central Statistics Agency, South Sumatra in Figures 2019

Small industries will be more quickly developed when agglomerate in a region to achieve economic savings [2], especially for areas that make the small industry as a leading sector. Related to this, a small industry in South Sumatra has great potential for agglomeration. The availability of raw materials, labor, and transportation costs become a force to support the process. Agglomerated small industries in an area will not experience difficulties in accessing raw materials, distribution of goods, and markets its products [3] and [4].

Regions, where small industries have been agglomerated will grow faster than other regions where small industries are not agglomerated. Therefore, regions that have a lot of industrial activity, will have a lot of capital accumulation. So that the economic growth will be faster.

In 2018, South Sumatra had 14,457 small industrial business units spread across the sub-district and led to the formation of agglomeration. This agglomerated small industry will have strong competitiveness because it can utilize collective efficiency in purchasing raw materials, labor, and marketing chains. The agglomeration of small industries in a region provides benefits to the development of the region, especially in supporting economic growth.

Related to this phenomenon, the focus of this study is to examine the relationship between small industrial agglomeration and economic growth in South Sumatra. The value of the agglomeration variable is calculated using the Balassa index. Then through a simple regression method with panel data will be linked to economic growth to see the patterned relationship of both.

II. LITERATURE REVIEW

A. Industry

The industry has two definitions: 1) in a broad sense, it covers all businesses in the productive economy; 2) in the strict sense, industry encompasses industrial activities that change basic goods into semi-finished goods and/or finished goods.

Industries can be classified according to commodity groups. The most universal classification is based on the International Standard of Industrial Classification (ISIC). This classification is based on the commodity group approach: 1) Food, beverage and tobacco industry (ISIC 31); 2) Textile, apparel, and leather industries (ISIC 32); 3) Timber industry, and wood products, including household furniture (ISIC 33); 4) Paper industry, and paper goods, printing and publishing (ISIC 34); 5) Chemical industry and goods from chemical, petroleum, coal, rubber and plastic (ISIC 35); 6) Non-metal mining industry, except petroleum and coal (ISIC 36); 7) Basic metal industry (ISIC 37); 8) Manufacture of metal goods, machinery and equipment (ISIC 38); and 9) Other manufacturing industries (ISIC 39).

The success of small industries is assessed based on the criteria number of workers absorbed, production, and sales. Small industries are generally labor-intensive, so small industries can withstand external shocks that occur [5].

B. Agglomeration

Agglomeration arises because economic agents seek to obtain savings of agglomeration (localization savings and urbanization savings), through nearby locations each other. Agglomeration reflects the system of interaction between the same economic actors (between companies in the same industry, between companies in different industries, and between individuals, companies, and households.

Agglomeration is often associated as a spatial form with the concept of internal-external savings and savings due to economies of scale and coverage [6]. Savings due to economies of scale occur when companies increase production by increasing plant sizes. Through an increase in plant size, the production cost per unit can be reduced so that economies of scale are achieved.

[6] stated the positive impact of industrial grouping is called economic agglomeration. Such as the formation of new industries, the creation of further employment opportunities, increased employment and capital attractiveness, improvement of community skills, development of related industries, expansion of local services at lower unit costs, and availability of good services and entertainment. Economic agglomeration in a region will encourage economic growth because of production efficiency. When agglomeration in a region reaches a maximum economic scale, then expansion after that point will only have a negative impact (agglomeration of diseconomies) for the region. Competition between companies and industries will increase the price of raw materials and factors of production so that the cost per unit will rise and there will be a relocation of economic activity to other regions that have not yet reached the maximum production scale [4].

Agglomeration is measured by several methods: 1) using the proportion of urban population in a province; 2) use the concept of production agglomeration through the proportion of district/city Gross Regional Domestic Product (GRDP) to Provincial GRDP; and 3) using the proportion of workers in the industrial sector in a district/city to the workers in the industrial sector in a province. According to Sbergami [7], The three concepts above are proxies of agglomeration called the Ballasa Index (BI).

In this study, agglomeration is measured using the concept of the proportion of industrial sector labor in a region. So the measured agglomeration is a reflection of the industrial agglomeration in a region. To calculate the Ballasa Index, use the formula;

$$BI_{it} = \frac{\left(\frac{E_{ij}}{\sum E_{ij}}\right)}{\left(\frac{\sum jE_{ij}}{\sum\sum j\,E_{ij}}\right)} \qquad (1)$$

where: LQ = BI_{ij} = coefficient of regional specialization; E_{ij} = labor in sector i in area j; $\Sigma_j E_{ij}$ = total labors in sector i in area j; $\Sigma_i E_{ij}$ = labor in area j; and $\Sigma\Sigma_j E_{ij}$ = total labors in the area j. The more centralized an industry, the greater value of the Ballasa Index.

C. Endogenous Growth Theory

Endogenous growth theory was initiated by Romer [8], which was the beginning of a revival of a new understanding of the factors that determine economic growth in the long run. Endogenous growth theory explains that economic growth is a process that originates from within a system. This theory appears as a critique of the neoclassical growth theory regarding diminishing marginal productivity of capital, and income convergence in various countries.

Endogenous growth theory emphasizes the determinants of long-term growth, so the impact on short and medium-term economic growth is negligible. Problems that arise such as lack of infrastructure, inadequate institutional structures, and imperfect capital and goods markets make economic growth in a region hampered.

Endogenous growth theory has three basic elements: 1) technological changes that are endogenous through the process of accumulation of knowledge; 2) the creation of new ideas by companies as a result of spillover and learning by doing mechanisms, and; 3) the production of consumer goods produced by a production function that grows without limits.

Endogenous growth theory is expressed in an equation: Y = AK, where Y is the level of output, A indicates the factors that influence (technology), while K is the stock of

physical capital and human resources. In this growth model, there is no decrease in the yield of capital (diminishing marginal of capital as in neoclassical theory

Endogenous growth theory provides a theoretical framework for analyzing endogenous growth, namely the growth of GNP that is determined by the system that governs the production process and not by forces outside the system. Endogenous growth theory explains increasing returns to scale and different long-term growth patterns across countries. In Romer's endogenous growth model, it is assumed that the growth process comes from a company or industry.

$$Y_tA = AKi\alpha Li1\text{-}\bar{K}^{\beta} \quad (2)$$

Each industry will use capital and labor at the same level so that the production function can be written as follows:

$$Yt = AK\alpha + \alpha\,\beta L1\text{-} \quad (3)$$

The endogenous growth model assumes that 'A' is constant and does not increase over time, and at that time there was no technological progress:

$$g_n = \beta / [1\text{-}\,\alpha + \beta] \quad (4)$$

Where: g = the rate of output growth, and n = the rate of population growth. Like the Solow model with constant returns to scale, $\beta = 0$, then per capita growth becomes zero (without technological progress). However, Romer assumes that by collecting all three sectors there are capital externalities; $\beta > 0$, so $g\text{-}n > 0$ and Y/L will grow.

III. Research Accomplished

Research by [9], concerning the spatial agglomeration of industrial in China using the Ellison and Glaeser Index (EG), and the Herfindahl Index (IH) found: 1) industrial agglomeration can encourage economic growth and have strong correlation with the value of industrial gross output; 2) geographical location has an important impact on the industry; 3) there are regions that provide capital, markets, and conditions for industrial development which are the dominant factors of industrial agglomeration; and 4) the number of resources is a factor of industrial agglomeration but when economic growth is low, the large amount of resources cannot be the dominant factor of industrial agglomeration

Research on the relationship between agglomeration and socioeconomic changes in Bekasi District conducted by [10], using descriptive analysis and multiple regression found slowly but surely industrial agglomeration in Bekasi Regency has established itself as a "prime mover" of the regional economy through significant contribution to regency/province Gross Regional Domestic Product (GRDP). Socio-economic changes can be seen from the components of population growth, productive age population, illiterate population, the level of population welfare, and the contribution of the industrial sector in the GRDP. The relationship between industrial agglomeration and socio-economic changes is demonstrated through the absorption of labor and an increase in value-added (GRDP of the industrial sector) that drives socio-economic changes.

[11] in their research on industrial agglomeration in Hong Kong and Taiwanese industrial investment in Dongguan China using the Ellison and Glaeser (EG) index, found agglomeration of manufacturing industries in Hong Kong and Taiwan had evolved in different sectoral and spatial patterns during several decades. Their research also identified that industrial agglomeration in Hong Kong was driven more by the formation of one or two large-scale companies. While in Taiwan due to geographical location. This is due to differences in the patterns of linkages between industries and the comparative advantages of industries in each region.

[4] in his research on the distribution of agglomeration locations in Indonesia, found agglomerated industries play an important role in the economy of a region, especially in encouraging economic growth. [12] in their research on the role of agglomeration and the characteristics of economic growth in Indonesia using variables of agglomeration, labor, inflation rates, economic openness, and human resources. It finds that regional economic growth is influenced by labor, inflation rates, and economic openness. While human resources and agglomeration variables do not affect economic growth.

IV. Methodology

The scope of this research is focused on the agglomeration of small industries in South Sumatra and their effects on economic growth in South Sumatra for the period 2008-2018. Observations were carried out in nine regencies/cities in South Sumatra, namely in Ogan Komering Ilir Regency, Prabumulih City, Musi Banyuasin Regency, Lubuk Linggau City, Muara Enim Regency, Lahat Regency, Pagaralam City, Palembang City, and Ogan Komering Ulu Regency. Consideration of observing in these nine regions is because these regions are the main districts/cities before finally being separated into several districts/cities. These regions have complete data and the diversity of small industries needed to support research.

The data used consists of secondary and primary data. Secondary data include data on the Gross Regional Domestic Product (GRDP) of the Regency / City and Province based on the 2010 Constant Prices, the population and total workforce in South Sumatra Province, labor absorbed by small industries, income per capita, and output produced by small industries in regencies / cities and provinces of South Sumatra. While primary data are production data, labor absorption, economies of scale, and others.

The analysis technique uses qualitative and quantitative approaches. A qualitative approach is used to describe the condition of small industries in South Sumatra and the characteristics of the variables related to the study. These variables include small industrial agglomeration and economic growth.

The quantitative approach is used to know the effect of small industrial agglomeration on economic growth in South Sumatra using a simple linear regression model with panel data. The independent variable is Small Industry Agglomeration (BI_{it}) and the dependent variable is Economic Growth (GE_{it}).

The agglomeration variables in the model are calculated using the Balassa index (BI_{it}), as follows: [7]

$$BI_{it} = \frac{\left(\frac{E_{ij}}{\sum E_{ij}}\right)}{\left(\frac{\sum jE_{ij}}{\sum\sum j\, E_{ij}}\right)} \quad (5)$$

where: BI_{it} = Balassa index to determine the value of small industry agglomeration; E_{ij} = sector i labor in area j; ΣE_{ij} = total workers in sector i in j area; $\Sigma_j E_{ij}$ = labor in area j; and $\Sigma\Sigma_j E_{ij}$ = total workers in the area j.

Economic growth variables (GE_{it}) use secondary data from the Central Statistics Agency published. The model is as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{it} + e_{it} \quad (6)$$

Specifically formulated;

$$GE_{it} = \gamma_0 + \gamma_1 BI_{it} + e_{it} \quad (7)$$

where: GE_{it} = economic growth, IB_{it} = small industrial agglomeration, and γ_0, γ_1 = regression coefficients, and e_{it} = error term.

After estimating, the next step is to choose the best model through 1) Chow test to determine whether the model used is Pooled Least Square or Fixed Effect. The Chow test follows the F-statistical distribution which is FN-1, NT-N-K. If the value of Chow statistics (F-stat) is greater than F-Table, then H0 is rejected, so the model used is fixed effect, and vice versa; 2) Determine whether the fixed effect or random effect model is the best model using the Hausman test. The statistical value of the Hausman test is compared with the Chi-square statistical value. The Hausman statistics are formulated: H = (ßREM - ßFEM) '(MFEM - MREM) -1 (ßREM - ßemFEM)) ~ χ^2 (k). Where M is the covariance matrix for the parameter ß and k is free degrees. If the value of H is greater than χ^2 table, then H_0 is rejected, so the model used is the fixed-effect model, and vice versa; and 3) LM tests are used if the final results through the two previous tests are not consistent with the final results. The basis for rejecting the null hypothesis (H_0) by seeing at the value of Prob. Breusch-Pagan (BP). If Prob BP is < 0.05 then H_0 is rejected, and vice versa [13] and [14].

Furthermore, testing the Gauss-Markov hypothesis: 1) test the residual normality of data to test whether in the panel regression model the residual value is normally distributed or vice versa; and 2) heteroscedasticity test. When there is a violation of the heteroscedasticity assumption, the results of the t-test and F-test become useless.

Last, do a statistical test simultaneously (F test) and partial test (t-test). The F test is carried out to test whether all the independent variables (IB_{it}) simultaneously affect the dependent variable (GE_{it}). While the t-test to determine whether the independent variable (IB_{it}) individually has a significant effect on the dependent variable (GE_{it}).

V. Results and Discussion

Small industries need to be fostered into efficient businesses and able to develop independently. Thus able to increase people's income, open up jobs, provide goods and services, as well as various components needed by the domestic and foreign markets. Initially, the existence of small industries was considered as an important source in providing employment and the main driving force in rural economic development. As globalization and free trade are increasingly widespread, small industries are becoming one of the important sources of increasing non-oil exports.

The importance of the role of small industries makes the government pay serious attention to its development. Likewise, the government of South Sumatra Province also provided support and formulated policies to encourage the development of small industries. The community is encouraged to foster entrepreneurial interest and create superior products from their respective regions. The important thing from the use of production factors that influence regional economic growth is the pattern of centralization, where various types of small industries are grouped in a particular place, which causes the concentration of supporting factors of small industrial production in a particular region. This can create a small industrial agglomeration that has a positive influence on the economic growth of a region.

A. Economic growth in South Sumatra

Economic development is essentially a continuous process to strengthen the ability of the economy to produce goods and services. The effects of this continuous process are often identified with economic growth because the effects of development will succeed if the achievements are higher than in the previous year.

Based on Figure 3, during the 2008-2018 economic development in South Sumatra grew volatile, with an average growth of 5.30 percent per year. This economic

growth should be felt by the whole region and not only concentrated in one region.

Fig. 3. Economic Growth of South Sumatra Province, 2009-2018
Source: Central Bureau of Statistics, Statistical Area South Sumatra in 2018

Economic growth in South Sumatra in 2018 is dominated by three main business fields, namely manufacturing (19.52 percent); mining and quarrying (19.09 percent); agriculture, forestry; and fisheries (15.86 percent).

B. Balassa index of South Sumatra Province

Small industry agglomeration is calculated using the Balassa index. The more centralized an industry, the greater its index. Small industrial agglomeration is said to be strong if the Balassa index number is above 4; average or moderate if the value is between 2 and 4; weak if the value is between

1 to 2; while the value of 0 to 1 means that there is no agglomeration of small industries or the region has no comparative advantage for the occurrence of small industrial agglomeration.

TABLE I. VALUES BALASSA INDEX IN SOUTH SUMATRA

Province	INDEKS BALASSA										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
South Sumatra	1,02	1,05	1,02	1,03	1,03	1,03	1,10	1,01	1,01	1,01	1,01

Table 1 displays the results of the calculation of the Industrial Balassa index in South Sumatra Province with a mean value between 1 and 2. This indicates that agglomeration in South Sumatra is still weak. In other words, the concentration of economic activity in South Sumatra has not yet been grouped. Small industrial sector activities just tend to lead to the potential for the formation of agglomeration [15].

B. *Relations between Small Industrial Agglomeration and Economic Growth in South Sumatra*

Analysis of the estimation results is done after the best model is obtained from the panel data estimation results between the Common Effect, Fixed Effect, and Random Effect Models. After obtaining the best model based on the results of the Chow test, Hausmann Test, or LM Test, the next step is to carry out the "t" statistical test for the selected model. After that, an analysis of the model parameters will be carried out to see the interrelationships between small industry agglomeration (BIit) and economic growth (GEit).

Table 2 presents an overview of the selection of the best model using the Chow test, Hausmann Test¸ andr LM Test;;

TABLE II. SUMMARY OF BEST SELECTION MODEL

Item	*prob*-F	Conclusion
Chow-test	0.0291	*Fixed Effect Model*
Hausman-test	0.7015	*Random Effect Model*
LM-test	0.1038	*Fixed Effect Model*

Based on the results of selecting the best model using the two previous methods it turns out that the result is inconsistent. Then proceed with the LM test between the Fixed Effect Model and the Random Effect Model. This LM test result will be used as the final result to be analyzed. Based on the LM test results, it can be concluded that the best model is the Fixed Effect Model.

C. *Gauss-Markov Hypothesis Testing*

Residual Normality Test Data - Data residual normality test is done by looking at the distribution of residual data and see the value of Prob Jarque-Berra (JB). The residual normality test results are shown in Figure 4.

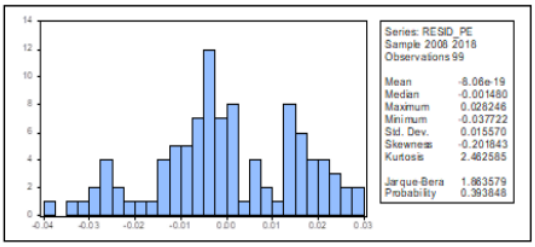

Fig. 4. Normality Residual Test

Obtained JB value of 1.863579, while Prob JB value of 0.393848 > 0.05. So it was concluded that (residual) data in this study were normally distributed.

Heteroskedasticity test- is done by regressing the absolute value of the residual with the agglomeration variable (BI_{it}). Estimation results are shown in the following table 3;

TABLE III. HETEROSKEDASTICITY TEST

Variables	Coefficient	*Std-Error*	t-statistic	*Prob*
C	-0.009549	0.025074	-0.380823	0.7042
BI_{it}	0.021852	0.024915	0.877039	0.3828

α = 5 percent

Based on the results of the heteroscedasticity test, obtained the probability value of the agglomeration variable (BI_{it}) of 0.3828 > 0.05. Thus H_0 is rejected, and the model is said to be free from the problem of heteroscedasticity.

D. *Statistical Test (t-test)*

The results of the statistical test t showed a positive relationship between the Small Industry Agglomeration variable (BI_{it}) and Economic Growth (GE_{it}). Seen from the prob t-statistic value of 0.0285 and significant at a level of 5 percent. There is a positive relationship between the Small Industry Agglomeration variable (BI_{it}) and Economic Growth (GE_{it}). The following are the estimation results with the Fixed Effect model. Here is presented the results of the estimation model Fixed Effect;

it can be rewritten as follows;

$$GE_{it} = -0.051258 + 0.096180BI_{it} \quad (8)$$

Based on equation (8) a constant value of -0.051258 is obtained, meaning that the process of agglomeration of small industries that drives economic growth must be faster than technological development. The agglomeration of small industries allows an increase in output which will create profits. The concentration of economic activities, in addition to allowing an increase in the value of output, also

leads to an increase in transaction costs, so that utility is low. This is the reason why in the short term, the agglomeration of small industries is not necessarily positive. In certain cases, changes in the value of agglomeration will show results in the long run. Where the level of per capita economic growth is following by the level of technological growth, so it is easy to identify the balance between the two.

TABLE IV. ESTIMATION RESULTS

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.051258	0.043463	-1.179346	0.2414
BI_{it}	0.096180	0.043189	2.226961	0.0285 *)
R-squared	0.2138 = 21.38%			
F-statistic	2.689988 *)			

*) significant level of 5 percent

The coefficient value of the small industry agglomeration variable (BI_{it}) obtained 0.096180 implies that there is a positive relationship between the agglomeration of the small industry (BI_{it}) with economic growth (GE_{it}). When an agglomeration of small industries increases by one percent, economic growth will increase by 9.6189 percent.

The determination value (r2) obtained by 0.2138 means that the contribution of the small industry agglomeration variable (BI_{it}) to the formation of economic growth (GE_{it}) is 21.38 percent, the remaining 78.62 percent is caused by other factors such as infrastructure, investment, technology, and government policy.

The relatively small value of determination (r^2) in this study was due to the data obtained from many respondents at the same time. So that the difference in variation between each industry group observed causes the value of determination to be small. Some literature states, for survey data that is cross-section in nature, the determination value (r^2) around 0.2 or 0.3 is good enough. The contribution of the independent variable to the dependent variable is not only based on the amount of the determination value but can also be accommodated through the significance of the F-statistical value (accepted) in the model.

The fixed effect model contains individual effect values for each district /city. The individual effect values in the fixed effect model are shown in Table 5 below:

Through the individual effect value of each district/city, the estimation model for each region can be rewritten as follows:

1. $GE\_PLG_t = -0.002433 + 0.096180BI_{it}$
2. $GE\_MUBA_t = 0.004819 + 0.096180BI_{it}$
3. $GE\_LLG_t = 0.003058 + 0.096180BI_{it}$
4. $GE\_PGA_t = -0.002150 + 0.096180BI_{it}$
5. $GE\_LHT_t = -0.001176 + 0.096180BI_{it}$
6. $GE\_ME_t = 0.001812 + 0.096180BI_{it}$
7. $GE\_PBM_t = 0.006378 + 0.096180BI_{it}$
8. $GE\_OKI_t = 0.006507 + 0.096180BI_{it}$
9. $GE\_OKU_t = -0.016816 + 0.096180BI_{it}$

TABLE V. EFFECT OF INDIVIDUAL VALUE (CI)

No.	District/ City	Ci
1	Palembang (PLG)	-0.002433
2	Musi Banyuasin (MUBA)	0.004819
3	Lubuk Linggau (LLG)	0.003058
4	Pagaralam (PGA)	-0.002150
5	Lahat (LHT)	-0.001176
6	Muara Enim (ME)	0.001812
7	Prabumulih (PB)	0.006378
8	Ogan Komering Ilir (OKI)	0.006507
9	Ogan Komering Ulu (OKU)	-0.016816

The value of individual effects in each Regency / City in the fixed effect model gives meaning when there is no agglomeration of small industries (BI_{it}), then the economic growth of each regency/city in South Sumatra will change as much as the value of each effect.

Based on equation (9), it can be described the economic growth of each regency/city in South Sumatra during the period 2008-2018. There are differences in economic growth for each district/city in South Sumatra.

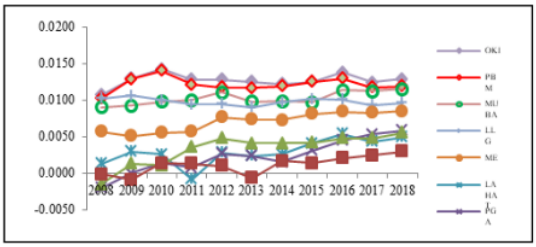

Fig. 5. Growth Regency/ City in South Sumatra Province, 2008-2017 (%)

Table 6 shows the final intercept values for each region that have been sorted from the largest to the smallest values. The results obtained from the addition of the model constant value of -0.051258. Five regencies/cities have relatively high intercept scores compared to others, namely Ogan Komering Ilir Regency; Kota Prabumulih; Musi Banyuasin Regency; Lubuk Linggau City; and Muara Enim Regency. If it is assumed that the independent variable does not affect, then the five districts/cities have the highest economic

growth compared to the other four districts/cities in South Sumatra.

TABLE VI. SEQUENCE INDIVIDUAL VALUE EFFECT (C_i)

No.	District / City	Final value Ci
1	Ogan Komering Ilir (OKI)	-0.0448
2	Prabumulih (PB)	-0.0449
3	Musi Banyuasin (MUBA)	-0.0464
4	Lubuk Linggau (LLG)	-0.0482
5	Muara Enim (ME)	-0.0494
6	Lahat (LHT)	-0.0524
7	Pagaralam (PGA)	-0.0534
8	Palembang (PLG)	-0.0537
9	Ogan Komering Ulu (OKU)	-0.0681

Nowadays South Sumatra region has experienced rapid economic structure changes. One of them is a small industrial sector. This is inseparable from the economic concentration that occurs through the support of infrastructure and access to information and transportation that is growing rapidly. This condition supports the process of forming a small industrial agglomeration in South Sumatra.

In line with the results of Crawley and Hill's research [16], it was found that the size of the company in concentrated conditions in several areas in South Wales has been explored, thus indicating the potential for agglomeration of the manufacturing industry.

In 2018 the contribution of the small industrial sector amounted to 49.52 percent. This number illustrates that the agglomeration of small industries began to play an important role in supporting economic growth through the creation of output values and employment opportunities in South Sumatra.

The agglomeration of small industries results in savings for each industry located in the same place in a regency/city in South Sumatra. By being located in a place, the cost of raw materials, promotions, and other supporting facilities can be saved. Seeing the conditions in South Sumatra, the diversity of the small industrial sector has been supported by the ease of obtaining raw materials, abundant labor resources at industrial sites, as well as low marketing costs. This indicates that there are savings in localization due to the location of the industries that are nearby each other.

The positive relationship between industrial agglomeration and economic growth has been demonstrated, especially for medium and large industries. Industrial agglomeration produces spatial differences in income levels. The more agglomerated small industries in an area will increase the economic growth of the area. Likewise, the level of industrial diversity has a positive influence on economic growth. The more diverse types of food industry activities will drive the pace of economic growth and vice versa.

By agglomeration, small industries can reduce technological externalities that cause higher production costs. Besides, it will make it easier for workers to find work in the agglomeration area, as well as speed up their work mobility because the workplace is relatively closer. Another advantage is accelerating the distribution of output because distributors have no difficulty in finding materials/products that they will market in the industrial agglomeration area.

This phenomenon was predicted by Kuznets and Murphy, who linked the problem of industrial agglomeration to a country's economic growth. Geographic concentration has the added advantage of reducing the cost of innovation due to business competition. By looking at the empirical information, it is concluded that the agglomeration of small industries is an alternative to accelerating economic growth. Especially for developing countries, such as Indonesia, which is still in the stage of the infant industry which usually still has many problems, especially capital and expertise that is still low.

VI. CONCLUSION

The agglomeration of small industries plays an important role in driving the economic growth in South Sumatra. The more agglomerated small industry is the higher economic growth of South Sumatra. Related to this, the government must pay more attention to the small industry by providing support by developing strategies and policies that are dominant in favor of the small industry.

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