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The Impact of The Pottery Industry in Regional Development of Deli Serdang Regency (Case Study in Bangun Sari Village, Tanjung Morawa Sub-District)

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ABSTRACT

"Impact" is any changes that occur in the environment due to the human activities. This study aims to determine the development of the pottery industry and analyze its impact on the socio-economic conditions of the community and the regional development of Tanjung Morawa District. The population of this research is all the pottery industry businesses in the Bangun Sari Village, Tanjung Morawa District. The analytical methods used in this study are inferential statistics and descriptive statistics analysis. The results showed at least three areas of influence that can be felt by the people of Bangun Sari Village, Tanjung Morawa District. These three are broken down into five impact indicators. The social sector consists of 2 impact indicators, namely the education sector and the health sector, which both them gave positive influence. The economic sector consists of 2 impact indicators such as the employment rate and business opportunities sectors. This study results showed that the pottery industry was able to increase labour absorption and family income. Whereas in the area of regional development, it showed that the pottery industry in Bangun Sari Village has a positive impact on the regional development of the village.

Keywords: Impact, Pottery Industry, Inferential and Descriptive Analysis

1. INTRODUCTION

The crisis that hit the Indonesian economy always leaves employment problems such as layoffs in various sectors, including the manufacturing sector which is classified as a large medium industry. In this condition, people are looking for alternative sources of income. However, it depends on one's creativity and motivation to do business.

One of the alternative sources of income that has developed in Indonesia after the economic crisis is the small industrial sector and handicrafts. The various types of handicrafts produced have high economic value and the demand for these goods continues to increase, not only at the local level but also as an inter-regional export commodity.

As one of the large regencies in North Sumatra, Deli Serdang Regency has many industrial activities. Various industries of medium, medium and small scale grow and develop in this region. Among them are the ceramic, glass, mosquito repellent, and instant noodle industries in Tanjung Morawa.

Also, the brick industry is spread across several sub-districts, such as Lubuk Pakam, Pagar Merbau, Beringin, Pantai Labu, and Tanjung Morawa. Meanwhile, the manufacturing of glasses, clocks, wood, and rattan furniture has developed in Tanjung Morawa and Deli Tua Subdistricts, as well as the stove, battery, and paving block industries in the Sunggal subdistrict.

As a supporter and regulator, the Regional Government of Deli Serdang Regency pays serious attention to industrial development, especially the small and home craft industry (IKKR). This includes crafts using clay raw materials.

There are several villages in Tanjung Morawa Sub-district, such as Bangun Sari Village, Bangun Sari Baru Village, and Wonosari Village. Even though they have received attention from the government, pottery entrepreneurs still experience problems to run their business.

Based on the author's observations in the field, in general, the problems faced by pottery craftsmen in Tanjung Morawa Subdistrict:

1. Mastery of technology is still low.

This can be seen in the process of preparing the material for the combustion

process. The craftsmen still rely on human power and the sun's heat.

2. Limited capital.

The craftsmen have not dared to take credit from banks or providers of funds for small businesses, because there is no certainty regarding the marketing of the handicrafts they produce.

3. Limited marketing.

The marketing of handicraft goods has not been optimally implemented. They market their products on the outskirts of the Medan - Lubuk Pakam highway. There has been no intensive promotion either from the craftsmen themselves or from the government.

4. Management is managed by the family.

Workers are generally family members, so business management is still not optimal, especially with regard to business bookkeeping.

Based on these problems, the formulation of the problems proposed in this study are: (1) How is the impact of the pottery business on the socio-economic community in Bangun Sari Village, Tanjung Morawa District? (2) How does the socio-economic effect of the pottery business on the development of the area in Bangun Sari Village, Tanjung Morawa Sub-District?

2. LITERATURE REVIEW

Meaning and History of Ceramics

The word ceramic comes from the Greek *ceramicos* which means something that is formed from clay and has undergone a combustion process. Meanwhile, according to dictionaries and encyclopedias in the 1950s, defining ceramics as a result of art and technology to produce goods from burnt clay, for example, pottery, tile, porcelain, and so on. However, currently, not all ceramics come from clay. So that the latest definition of ceramics includes all solid non-metallic and inorganic materials. (Yusuf, 1998).

Ceramics or pottery are estimated to be thousands of years old, and the history of ceramics found in various parts of the world, such as China, Japan, Egypt, Greece, Korea, Thailand, Peru, the Philippines, Vietnam, and other parts of the world. The skill of making ceramics itself appears and grows naturally.

The legacy of pottery can be seen in different locations as a product of the history of the pre-historical community of Indonesia.

Among them, fragments of pots have been found on the northeast coast of Sumatra in Bukit Kulit Kerang located between Langsa and Medan. The pottery shards are so fragile that their original shape or type is hard to recognize. There are two sorts of pottery, decorated and some of which are white.

The decorations that appear in the findings are in the form of scratches or marks from hard objects, besides that there are square motifs or reliefs and others. The conch culture in the Mesolithic era was known as the "Kjokkenmoddinger" culture. It seems that this form of seashell culture lasted a long time, while elsewhere at the same time the Neolithic period began (Kempers, 1960).

Economic development is defined in this study as a mechanism that causes the actual per capita income of a society's population to rise in the long run (Sukirno, 1996). Based on this definition, it can be shown that economic development implies the presence of a constantly occurring development mechanism that adds and improves all for the better. It is expected that an improvement in the community's real income would result in this development process.

Initially, economic development is often opposed to social development as an approach to development. This is related to the understanding of people who use the term development, which represents the economic changes driven on by industrialization. The theory of social development became popular in the domain of social work in the early 1980s. The emergence of the social development concept is a reflection of the determination of the direction of economic development. Social issues such as poverty are perceived to be skewed by economic development. The era of industrialization has promoted capitalism's development, stressing economic growth such that social aspects are ignored.

The impact is any change that happens in the environment due to human activities (Suratmo, 2004). The impact of a development project on the socio-economic aspect, especially for developing countries, can be found in the following components which are designated as socio-economic indicators, as follows: (1) Labor absorption. (2) The development of the economic structure, the emergence of other economic activities such

as shops, stalls, restaurants, transportation, and others. (3) Increasing community income. (4) Public health. (5) Public perception. (6) Population growth and so on. For this intervention to affect the balance in a community system, the influence can be positive or negative. These social impacts can be seen in the fields of social interaction, social change, and socio-economic conditions.

The concept of regional development is developed from the needs of an area to improve its function and role in managing social, economic, cultural, educational, and community welfare. The effects of globalization, free markets, and regionalization have led to changes and dynamics of spatial, social, and economic between countries, between regions (regencies/cities), sub-districts to rural areas. Globalization is also marked by the revolution in information technology, transportation, and management.

Regional development is an important part of the development of a region, particularly in rural areas where developments on a global scale are very vulnerable and difficult to meet. This transition would result in an increasing number of underdeveloped villages if it is not accompanied by good regional planning, taking into account the internal, social, and economic development dimensions.

To be able to improve productivity, local-based production management, and appropriate technologies that can jointly impact other regions, a paradigm change has to be made in rearranging areas that are classified as poor and weak. Simply put, in rural planning, the idea of community development needs to be adopted to promote local economic growth and strengthen people at the grassroots level so that they can influence the market sustainably.

Hypothesis

Based on existing conditions in the field as well as the theoretical review described earlier, the existence of a pottery business in Bangun Sari Village, Tanjung Morawa Subdistrict has an impact, both on socio-economic impacts and impacts on regional development. So the hypotheses to be tested in this study are as follows: (1) The pottery business has a positive impact on the socio-economy of the community in Tanjung

Morawa Subdistrict, Deli Serdang Regency. (2) The pottery business has a positive effect on the development Tanjung Morawa Subdistrict, Deli Serdang Regency through its impact on the socio-economic conditions of the community.

3. RESEARCH METHODOLOGY

This study was conducted in Bangun Sari Village, Tanjung Morawa Subdistrict, Deli Serdang Regency, North Sumatra Province. Bangun Sari Village is one of the villages in the Tanjung Morawa Subdistrict, most of which are located on the Sumatra highway. The reason for choosing Bangun Sari Village is based on observations of the activities of the pottery craft industry which is one of the attractions coupled with the potential for the development of ornamental plants in this village.

In November and December 2017, the study on the pottery industry in Bangun Sari Baru Village was conducted for 2 months. The study was carried out by direct interviews with pottery entrepreneurs (who lead the household) or their spouses. If they can not be interviewed for some reason, then interviews with other members of the family aged 15 years or older are performed. Researchers, assisted by the head of the local hamlet, performed direct interviews.

The population in this study were all pottery craftsmen in Bangun Sari Baru Village, Tanjung Morawa Subdistrict. This is because this research is a case study and the number of pottery craftsmen in the village is relatively small, namely as many as 50 craftsmen.

The social impact in this study in the form of the influence of the pottery handicraft business in Bangun Sari Village, Tanjung Morawa Subdistrict on social aspects, is approached by several indicators, such as (1) Educational aspects, consisting of increased ability to meet children's school fees, increased ability to buy textbooks I can fulfill other needs for children in school, the desire to send children to a higher level. (2) Health aspects consist of: I can fulfill the health needs of family members, if there are family members who are sick then they receive medical treatment, the health conditions of family members are better now, the condition of the home environment is healthier and better.

With the presence of a pottery craft business, the economic aspect for the people of Bangun Sari Village, Tanjung Morawa Subdistrict, is measured in two ways, namely: (1) Aspects of labor absorption, consisting of the pottery business opens up substantial work opportunities in this village since the pottery business will accept more workers because they do not need such educational requirements (2) The business opportunity aspect consists of pottery business increases craftsmen income, pottery business increases craftsman employee income, pottery business development opportunities in this village are quite high, pottery crafts create other business opportunities for the community in this village, handicraft business. pottery has the potential to be the main business of the community in the village.

Apart from the social and economic impacts, the existence of the pottery business also affects the development in Bangun Sari Village in particular and Tanjung Morawa Subdistrict in general. The qualitative approach that will be asked of respondents regarding regional development is as follows: the population in this village has increased educational facilities in this village are quite good, the number of children who are attending higher education is increasing, health services in this village are quite good, telecommunications networks have entered this village, most of the population already has communication tools (especially mobile phones), transportation to and from the village, my family has a means of transportation, the marketing of the products from this village is quite good, and the marketing of handicraft products from this village is quite good.

In this research, the data analysis method used is descriptive statistical analysis method and inferential statistics. Descriptive statistical analysis will be used to analyze qualitative data such as gender, education level, and the social impact of pottery. Meanwhile, inferential statistics are used to analyze quantitative data such as the number of workers and the income of the pottery industry. The inferential statistical analysis used was the normality test, validity test and reliability test, and the mean difference test between the two populations.

4. RESULT AND DISCUSSION

Descriptive analysis in this study is used to see several factors that affect the performance of pottery handicraft entrepreneurs in Bangun Sari Village, Tanjung Morawa District. The analysis is presented in the form of descriptions and or pictures so that readers can easily understand the characteristics of the pottery industry as a result of this study.

The results of research in Bangun Sari Village on pottery handicraft entrepreneurs show that only 20 percent of these entrepreneurs are female. When examined more deeply, not all of these entrepreneurs have the status of the head of the household. Some of them are wives. When viewed from the age of the pottery entrepreneurs in Bangun Sari Village, it can be seen that most of the entrepreneurs (30 percent) are in the 50-60 year age group.

Meanwhile, young entrepreneurs aged 20-29 are less likely to be at only 12 percent. The same thing also happens to handicraft entrepreneurs who are older (60 years and over). This condition indicates that the regeneration of pottery entrepreneurs is slow and tends to occur due to business inheritance from their parents.

The results showed that none of the pottery entrepreneurs in Bangun Sari Village had a diploma or a bachelor's degree. Most (about 76 percent) of these entrepreneurs have only high school education or the equivalent. Also, the next interesting research result to analyze is the experience of being a pottery handicraft entrepreneur.

Most of the pottery entrepreneurs (42 percent) have been in this business for 11-15 years. Meanwhile, the number of new entrepreneurs (who have been doing business for about 0 - 5 years) is 4 entrepreneurs (8 percent). The same is true of entrepreneurs whose business age is more than 20 years. There are even entrepreneurs who have been in this business for more than 50 years.

In this study, the normality test was carried out using the chi-square test. While the variable to be tested is the income variable of the pottery craft entrepreneur, both before and after becoming a pottery entrepreneur. The results of the Kolmogorov-Smirnov normality test using SPSS obtained the following results:

Table 1

Results of Kolmogorov-Smirnov Normality Testing Variable Income of Pottery Craft Entrepreneurs

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Before becoming a pottery entrepreneur	.117	50	.085	.981	50	.616
After becoming a pottery entrepreneur	.116	50	.088	.971	50	.260

a. Lilliefors Significance Correction

Prior to becoming an entrepreneur, the findings of the Kolmogorov-Smirnov normality test using SPSS obtained a significance level value for the income of 0.085 and 0.088 after becoming an entrepreneur. For the null hypothesis to be accepted, each of these values is higher than the significant amount of 0.05. This means that the value of income before and after becoming a pottery handicraft entrepreneur is normally distributed. Thus, all variables obtained in this study are assumed to be normally distributed, so that further analysis can be carried out.

Table 2

Results of Testing the Validity of Pottery Craftsmen's Income Variable with the Pearson Bivariate Correlation Validity Test

		Correlations		
		Before	After	Total income
Penghasilan Sebelum	Pearson Correlation	1	.405**	.746**
	Sig. (2-tailed)		.004	.000
	N	50	50	50
Penghasilan Sesudah	Pearson Correlation	.405**	1	.911**
	Sig. (2-tailed)	.004		.000
	N	50	50	50
Total Pendapatan	Pearson Correlation	.746**	.911**	1
	Sig. (2-tailed)	.000	.000	
	N	50	50	50

** . Correlation is significant at the 0.01 level (2-tailed).

On the pottery craftsman income variable, the first validity test is performed. Table 2 shows the findings of the validity test of the Pearson Bivariate correlation. The test findings above reveal that both before and after becoming a pottery craft entrepreneur, the income variable is valid for measuring a pottery craft entrepreneur's income value because, with a 95 percent confidence level, the significance

value for both correlations is less than 0.05. The same refers to the testing of the validity of the effect on education performance, the impact on health quality, the impact on employment, the impact on business opportunities, and the impact on regional development.

Table 3
Correlation Value of Cronbach's Alpha Impact Indicator

No	Indicator type	Cronbach's Alpha Value	Total variabel	Result	Description
(1)	(2)	(3)	(4)	(5)	(6)
1.	Income	0.850	3	Reliable	High
2.	Education	0.798	5	Reliable	High
3.	Health	0.800	5	Reliable	High
4.	Employment	0.687	6	Reliable	Moderate
5.	Employment Opportunity	0.713	5	Reliable	High
6.	Regional Development	0.742	11	Reliable	High

Source: Data Processing Results

Based on the data from the results of the processing, it can be seen that all the variables that make up the pottery handicraft business impact indicator are reliable. For each indicator, the correlation value of Cronbach's Alpha is very diverse, beginning from 0.687 to 0.850. The highest Cronbach's Alpha correlation value is obtained by the income indicator of the entrepreneur. This is because the data type is quantitative (ratio scale), while qualitative data whose value is quantified is qualitative with other indicators. Also, the findings of researchers' interviews with respondents showed that when asked about income, respondents had very strong memories. On the other hand, respondents often refuse to make their choice of a value for perceptual questions.

The difference in the income level of the pottery handicraft entrepreneur between before and after becoming an entrepreneur can be seen directly in the average value of his income. The average value of income before becoming an entrepreneur was IDR 1,886,000, -. Meanwhile, the average income after becoming a pottery handicraft entrepreneur is IDR 3,303,000, -.

However, whether this difference is significant or not remains to be tested statistically. The statistical test used is an

analysis of the mean difference between the two populations. The table of SPSS output results shows the comparison of the average value of the income variable before and after becoming a pottery entrepreneur (based on interview data in November 2017).

Table 4
Results of Testing Differences in Income Levels with Analysis of the Average Difference of Two Populations

One-Sample Test						
Test Value = 0						
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
				Lower	Upper	
Before becomi ng a pottery entrepre neur	28.697	49	.000	1886.000	1753.93	2018.07
After becomi ng a pottery entrepre neur	31.130	49	.000	3303.000	3089.78	3516.22

Based on the output table, it shows that the two variables have an average population value that is different from one another. The income of these entrepreneurs increased sharply after becoming pottery entrepreneurs. The results of the interviews provided information that the increase in income was because these entrepreneurs had prepared themselves to become pottery entrepreneurs before leaving their previous businesses.

Also, if after becoming a pottery handicraft entrepreneur, the expected income is not achieved, the entrepreneur will return to his previous job or look for another job. So that those who remain entrepreneurs are those whose income is better than the previous.

The impact of the pottery business also affects the health sector. The majority of respondents state that they agreed the pottery business had a positive impact on the health sector. Of all the statements which are indicators of health, all have a median value of "agree" with the statement. The mode score is about 80% of respondents answered agree, and none of the respondents answered "disagree, or "strongly disagree". Even for the health impact of the statement "If a family member is sick, they can be taken to medical personnel for

treatment" about 30% of respondents answered strongly agree". Even so, there were 2 - 4% of respondents who answered "disagree" with the statements regarding health impacts 3 and 4.

In general, the pottery business has had a positive impact on the people of Bangun Sari Village, Tanjung Morawa Subdistrict. This can be seen from the two types of social impacts that it affects, such as the impact on the education and health sectors. Both of these impacts are directly felt by households who employ pottery as respondents in this research.

The scientific explanation for the positive impact in these two sectors is the increase in the income of the respondents after becoming pottery entrepreneurs. With this increase in income, households are better able to fulfill their needs in both the education and health sectors. In terms of employment, the pottery business in Bangun Sari Baru Village will increase employment in the village. This is because in theory, the opening of new employment opportunities will increase the need for production factors, namely labor and capital goods such as machinery. The pottery business is an industry that is more labor-minded than capital-minded.

So that the majority of respondents agreed that opening a pottery business would increase employment. The median value and mode of all statements are indicators of labor absorption and agreed with this statement.

Another indicator of economic impact is an increase in job or business opportunities. The opening of a pottery business by the respondents directly has opened new jobs for both the respondent and for other parties who will be involved in the activity. Statistically, the majority of respondents answered "agree" with the 4th statement which is an indicator of impact and also with the mode value. About 60% of respondents agree with all of these statements. However, when examined item by item statement, for the second statement, "The pottery business increases the craftsmen employee's income," about 38% answered disagree. The reason is that the wages for employees tend to be standard based on the UMK (district minimum wage) and not because of the sector.

Based on the above two studies on the impact on labor absorption and business opportunities, it can be inferred that the respondents to this study have typically acknowledged a positive impact on the

economic sector. This suggests that the company of pottery crafts has been able to increase the economic level of the community of the Bangun Sari Village in general and craft entrepreneurs in particular.

The last indicator that will be discussed in testing this hypothesis is the effect of the pottery business on regional development. The results of processing output using SPSS show that respondents tend to "agree" that the pottery industry in Bangun Sari Village has a positive impact on regional development. Even when detailed by item, around 20% of respondents strongly agree with this positive impact.

Table 5
Results of Analysis of Regional Development with the Central Tendency Analysis Method

		Statistics				
		RD 1	RD 2	RD 3	RD 4	RD 5
N	Valid	50	50	50	50	50
	Missing	0	0	0	0	0
Median		2.00	2.00	2.00	2.00	2.00
Mode		2	2	2	2	2

		Statistics				
		RD 6	RD 7	RD 8	RD 9	RD 10
N	Valid	50	50	50	50	50
	Missing	0	0	0	0	0
Median		2.00	2.00	2.00	2.00	2.00
Mode		2	2	2	2	2

This is in line with research by Agus (2008) who researched the role of small food industry businesses in regional development in Bango District, Merangin Regency, Jambi Province. The results of his research indicate that the small food industry business activities in Bangko subdistrict, Merangin Regency, have a positive influence on regional development. This influence is the recruitment of workers, an increase in community income from the profits earned by employers and the wages received by workers, and the use of local raw materials. The positive influence can also be seen from the transformation of knowledge carried out by small food industry entrepreneurs to their jobs.

6. CONCLUSION

Currently, there are 50 pottery craft entrepreneurs in Bangun Sari Village, Tanjung

Morawa Subdistrict. The results of this study indicate that there are three areas of influence for the community of Bangun Sari Village, Tanjung Morawa Subdistrict. These three areas are the five indicators of impact indicated by several statements. Following are the results of a study on the five impacts of the pottery handicraft business in Bangun Sari Village, Tanjung Morawa Subdistrict:

1. Two social indicators. It consists of two impact indicators, namely the education sector and the health sector. In the education sector, the pottery business has had a positive effect on increasing the community's ability to meet household educational needs. In the health sector, the pottery business has a positive effect on increasing the health status of household members as a result of increasing their ability to fulfill the need for medicine and health services.
2. Two economic indicators. It consists of the impact of the employment sector and business opportunities. In the labor absorption sector, the pottery business is directly able to increase the absorption of labor in the village. In the business opportunity sector, the pottery handicraft business is an alternative business field for rural communities that wants to open new businesses to increase family income.
3. Regional Development Sector. In regional development, the impact of the pottery business is described in 10 statements, all of which describe a positive statement, including the population in this village has increased, the number of children attending higher education is increasing, the telecommunications network has entered this village, mostly the residents already have a cellphone, means of transportation to and from the village, the marketing of handicraft production from this village is quite good, the health services in this village are sufficient, the educational facilities in this village are good. The results showed that the respondents agreed with all statements regarding the development of the area.

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