

## DETERMINANTS OF CHANGES IN THE INCOME LEVEL OF MSME ACTORS IN PAHLAWAN VILLAGE, BATUBARA DISTRICT

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**Abstract:** This study aims to analyze how the income of MSME traders during the Covid-19 Pandemic is approximately what factors affect the income of MSME traders. This research was conducted using quantitative research methods using CFA (*Confirmatory Factor Analysis*) and Multiple Linear Regression. Data collection techniques in this study were in the form of interviews, questionnaires and documentation, and the data used were primary data. The results of the study using show that the factors that affect the income of MSME traders, namely the Old Business Factor (X1), Capital (X2), and the Use of Technology (X3) and Income (Y), of these three factors the Old Business Variable does not have a significant effect on the income of MSME traders shown by the Sig. X1 to Y is  $0.284 > 0.05$  and t count  $1.083 < t$  table 2.006 so it can be concluded that H1 is rejected which means there is no effect of Business Length (X1) on MSME Merchant Income (Y), furthermore, the Capital Variable has a significant effect on the income of MSME traders which is indicated by the Sig. X2 to Y is  $0.004 < 0.05$  and t count  $3,051 > t$  table 2,006 so it can be concluded that H2 is accepted which means that there is an influence of Capital (X2) on Income (Y) and also Variables The use of Technology has a significant effect on the income of MSME traders as indicated by the value of Sig. X3 to Income (Y) is  $0.029 < 0.05$  and t count  $2,240 > t$  table 2.006 so it can be concluded that H3 is accepted which means that there is an effect of Technology Use (X3) on Income (Y). The conclusion is that the Business Duration does not have a significant effect on the income of MSME traders, while capital and the use of technology have a significant effect on the income of MSME traders. Traders should pay more attention to factors that affect income in order to increase the income of MSME traders.

**Keywords:** Factor Analysis, CFA (*Confirmatory Factor Analysis*), Multiple Linear Regression, Revenue, MSME Traders.

## **INTRODUCTION**

The government coined the terms PSBB and PPKM in order to prevent covid-19 transmission so all community activities were temporarily suspended. All activities have changed to online, such as working from home, schooling from home, etc. People are asked to stay at home government so that the covid-19 numbers do not rise. On the other hand, the appeal of Covid-19 has made all sectors in various fields falter and even stop, one of which is the Economic sector.

The economy is the responsibility of the Indonesian government. The Indonesian government must be able to make a strong economy. A strong economy can make people's lives live. People's lives are guaranteed by a strong economy (Princess F. R., 2020). There are 1,028,309 inhabitants in Batubara District. Those are the data figures in 2017. That's a large population. The labor force is ensured to be large in the 1 million-plus population. The highest educated workforce of junior high schools in Batubara District. Of the 1 million residents, 38.21% graduated from junior high school and below. 25.39% finished junior high school. 28.99% finished high school. 7.41% finished college. There is a lot of unemployment there. Unemployment occurs because it does not have a special subtlety. MSMEs are the way out of this matter. The Batubara District has its community to rely on MSMEs. There are 191,891 (91.71%) non-agricultural MSE workers according to SE2016. There are 18,590 people (8.29%) of UMB's workforce. In moving the wheels of the economy in the Batubara District, they are engaged in construction, administration, information, services, transportation, and information. These fields grew the economy by 4.98% in the period 2011-2016 (BPS, 2016).

In the social economy, MSMEs have an important position. Even though it is like that, a difficult journey awaits MSME players. MSME actors will be faced with obstacles. For example, MSMEs in Wampu sub-district can provide jobs to people. However, they found a common problem. The problem is that the capital to build MSMEs is minimal.

In building a business, capital is considered important. Capital is very important in building a business or running a business. In business development, capital is the basic thing. But capital as a basic thing is often a basic problem anyway. Capital can come from oneself. Capital can also come from outside help. In addition, the amount of capital received also affects the readiness of MSME actors in running their businesses. Productivity and income increase directly proportional to capital and labor (Sukirno, 2009). The lack of information about technological developments affects the facilities and infrastructure of a business. The lack of facilities and infrastructure can not support the development of a business. Information Technology is still often not used by MSME actors. Information Technology can support their efforts. That is to support in the field of marketing. With information technology, goods and services can be marketed online. Marketing is done online. A more general term is Electronic Commerce (E-commerce). Good, correct, and appropriate marketing is the key to a product being known to the public. (Riyan, Desiana, & Doni, 2020). With an explanation of the background of the topic that the researcher raised, the researcher explained the identification of problems as below The income of MSME actors in Wampu District during the Covid-19 Pandemic has decreased due to reduced selling power. The decline in people's purchasing power was caused by social restrictions during the Covid-19 Pandemic. There are several factors that affect the income of MSME traders in Wampu District including Capital, Entrepreneur Education, Business Duration, Operating Hours, Marketing Strategy, Use of Technology, Community Income, Business location, Product Quality, and Innovation.

## **LITERATURE REVIEW**

### **Sollow Swan's Theory**

M. Solow (1956) and T.W. Swan (1956) have theories on neo-classical growth that correspond to this. They include elements of a growing population and population calculations with technology and results that come out. It all interacts with each other. What is different about the model is the advanced technological element coming in.

Solow-Swan's theory states that growing exogenous determine output that grows with advanced technology (Dornbusch, Fischer, & Starz, 2006). Solow-Swan allowed the emergence of substitutions on capital (K) and labor (L) in the use of models of production functions. Capital accumulation is the source of growth rate. In addition, the increase in capital also increases growth. The increasing workforce and increasingly advanced technology also increase growth. Productivity can be said to increase if technology can improve skills or techniques. The problem facing the function of time is a technological problem according to Solow-Swan.

$$Y(t) = F [ K(t), L(t), A(t) ] \dots\dots\dots (1)$$

On the functioning of the product directly time is excluded. However, if the input changes, there will be changes in the output through K, L, and A. Inputs in productivity can be increased by Technology (A). Economic regions can advance due to advanced technology. Output can be produced more with the same input. Time (with advanced technology) can increase the accumulation of capital and labor which is the acquisition of output. It is influenced by the increase in knowledge.

Higher incomes can be obtained with advanced technology that supports productivity (Sukirno S., Development Economics (processes, Problems, and Policy Basis), 2006). The high and low income can be used in looking at the economic state of the community. Benchmarks are often made from opinions. Income measures society in the contribution to the country's economic development. The consistent production of goods and services makes MSMEs strong. Strong MSMEs can also be because MSME actors can make jobs for people and pay them. (Langga, 2021) Promising revenue is an aspect that during covid-19 is important consideration.

## **1. Pareto Theory**

The economy is used by the state in localizing resources and regulating them. The goods and services are also allocated to the general public in the country. In the third quarter of 2021, economic growth changed to 4.5%

according to Sri Mulyani as finance minister. In handling covid-19, economic recovery is an important thing to do so that covid-19 disappears. The economy continues to improve its performance in order to recover (ministry of finance, 2021).

Market mechanisms develop the economy that is being built now. The system is to compete fairly and uphold the principle of justice. That way a growing economy is guaranteed. What makes the economy grow is the quality of life, development, and environmental insights. A guaranteed economy is also enhanced with consumers having rights protection. It was enacted for the creation of justice. MSME entrepreneurs must be empowered with efficiency. They must be able to produce and compete with markets that have broad business opportunities (Herry Wira Wibawa, 2021).

The field of economics can apply the theory by Pareto. Krugman (2006), In widening the uneven economic attributes, then uses the Pareto principle. The uneven economy is in the "USA to Skill-Biased Technical Change", namely economic growth occurs because of higher education and accumulating skills so that they can take advantage of technologists in the era of globalization.

The 80/20 rule which is a principle by Pareto is a definition that states the event that occurs is 80% but it occurs because of its cause which is 20%. A management officer, Joseph M. Juran, introduced this principle.

Profits can be increased by this principle. The most potential areas of the company that increase profits can be used to increase profits. The company is able to see the market share that can be used in building a business and that is because it uses Prinsi Pareto. The 20% factor is what makes that happen. The 20% factor is what results in an 80% magnitude result. By paying attention to this method, companies can focus on 20% while clients focus on the 80% so that marketing can occur and that benefits the company. Of course, this is in line with improving the economy of a region to provide better income. To improve the economy of a region through MSME actors, it is necessary to pay attention to the following things:

**a. Capital**

In the process of production of goods or services, it is necessary that the so-called capital in order for the goods to have economic value. One of the factors of production is capital. Companies in realizing the wishes of the community, and the model is a tool that can make it happen. (Sukirno S. , *Microeconomics Theory Introduction*, 2019). This is because in business development the basic foundation is capital. Obstacles also often occur because of capital. Capital can be from oneself or capital from outside. In addition, the amount of capital received also affects the readiness of MSME actors in running their businesses. Income and productivity increase directly proportional to sufficient capital and sufficient labor (Sukirno, 2009).

#### **b. Education**

Business income can also increase based on the high level of education. Competition in the productivity of the enterprise can be annulled by the availability of employees with a good level of education. In addition, there are technologies that are a factor in good and bad production. Knowledge of the latest technology will affect the company's facilities and infrastructure. Many MSME businesses are also not developing because they do not utilize technology, especially information technology (IT). Even though IT can help in the process of marketing products on social networks or online with a term called e-commerce. A wide market and well-known products among the public are the keys to the success of MSMEs (Riyan, Diana, & Doni, 2020).

#### **c. Length of Business**

The length of the business also needs to be considered in research (Diwayana, Annisa, & Aditya, 2022) saying how long a business has been running does not have any impact on MSMEs. The emerging MSME actors who have just arrived are partly the level of education of the perpetrators or employees higher than the old swordsman. Due to higher education factors, they can be more innovative in making products or more able to manage finances. But most consumers, many prefer old merchants because they are considered more experienced.

#### **d. Product Quality**

Customers or consumers can get offers about products with good quality. MSME actors must provide good quality to their products. Good quality products can compete in the market. Products with good quality can compete even though they have limitations. In the industry, good quality products can increase the sense of wanting to buy from consumers. In this era of globalization, the desires and needs of society are very strict and companies are required to be able to follow the needs of consumers. The products that consumers want are also superior in order to win the competition in the market or create unique products that do not yet exist. (Rosmadi, 2019).

#### **e. Location**

The place of business or location is an important factor to consider. The place of business in this context is the place where the trading process takes place. This factor can be the maker of the situation of the association. Therefore in terms of competition, location is an important factor (Putri & Made, 2017). The goods and services to be allocated are determined by the strategic location of the market. The strategic location makes it easier for consumers to get goods or access services (Amilia, 2019). The benefits of an MSME can be increased by a strategic location. Corporate or trading operations can occur more efficiently if placed in the right location. The right location can meet revenue expectations. Based on the theory above, it can be concluded that a location is a place where the company operates and produces goods and services and the selection of a company location determines the success of a business. According to Fandy Tjiptono (Nurlisa, Ismaulina, & Suryani, 2021), The following factors are what entrepreneurs often consider in making a business:

- Access, consumers must be able to easily get to the place
- Visibility, consumers should easily see where the place is located
- Traffic, there are two things to consider: the place where people often go through makes products that consumers can buy. Because sometimes in the purchase occurs suddenly. then linta that is not smooth can also hinder

- Convenient car and motorbike parking space for free movement.
- Environment, that is, the surrounding area that supports the products offered. For example, restaurants/restaurants are adjacent to the area.

#### **f. Innovation**

Introducing products to consumers is a form of innovation. It was a modification in the undertaking. This will lead to changes in revenue. Perhaps innovations are rarely made. Although innovation is rarely carried out, the goods are still consumers receive. High income is derived from the goods that consumers need. If such a thing has happened, then business actors do not really need innovation for their products so that high incomes can be obtained.

### **RESEARCH METHOD(S)**

This section includes the study design, population/sample, data collection techniques and instruments, data analysis tools, and research models employed. The overall procedure does not need to be described in full; it is necessary to provide a reference (eg: F-test formula, t-test, etc.). It is required to present the test findings and their interpretation in order to demonstrate the validity and reliability of the research instruments. The symbols on the model are described in sentences.

This study used CFA and Multiple Regression research types. According to (Sugiyono, 2015) This research is of a quantifiable type based on positive. It is useful in evaluating populations or samples, collecting and analyzing data quantitatively, and testing hypotheses, To prove the hypotheses that have been created, researchers use statistical data analysis as an instrument in determining samples, populations, and collecting data.

#### **3.1. Place and Time of Research**

This research was carried out in Pahlawan Village, Tanjung Tiram District, with a research time planned from November 2022 to April 2023.

#### **3.2. Types and Scope of Research**



Data analysis is adjusted through a quantitative approach. The scope of this study is focused on where to have indicators: income level, MSMEs, and factors that influence it and analyze sustainable opportunities that exist in Pahlawan Village, Tanjung Tiram District.

### 3.3. Data Collection Techniques

Data collection techniques are a systematic and objective way to obtain or collect oral and written information. The data collection techniques in this study are as follows:

#### a) *Study* Interview

Data collection Is carried out by determining a direct question and answer between the interviewer and the interviewee about everything that the interviewer knows.

#### b) *Questionnaire / Questionnaire*

The data were collected using questionnaire surveys of health economics and population growth. The questionnaire survey provided is a modification of the questionnaire used in the research of Saraswati and Perumal (2018). To find out the number of populations in this study, a number of people in this study the population is 127 MSME actors of the Staple Food Shop type in Wampung District. In this study, the magnitude of the number of samples taken using the Slovin formula was as follows:

$$n = \frac{N}{1 + Ne^2}$$

Information:

N = number of populations

n = number of samples

e = percent of inaccuracy due to intolerable sampling errors, which is 10 percent.

Based on the Slovin formula, the number of samples in this study can be calculated as follows:

$$N = 127$$

$$n = 127 / (1 + (127 \times 10\%))$$

$$n = 127 / (1 + (127 \times 0.1^2))$$

$$n = 127 / (1 + (127 \times 0.01))$$

$$n = 127 / (1 + 1.27)$$

$$n = 127 / 2.27$$

$$n = 55,947$$

From the calculation using the formula, a sample result of 55,947 was obtained. So the number of samples in this study was 56 traders. The method used in sampling this study was to use a simple random sampling method.

In this method, sampling is carried out randomly, meaning that all populations have the same opportunity to be selected as a sample based on the type of business in question, anyone, anywhere and anytime can be found who is then used as a respondent.

### **3.4. Data type and source**

This study used primary data types and secondary data. Primary data will observe fishermen in Pahlawan Village by distributing questionnaires to 55 respondents directly. Meanwhile, secondary data is taken from research data obtained through intermediary media or indirectly in the form of books, records, existing evidence, or archives both published and unpublished in general.

### **3.5. Data Analysis Methods**

For data analysis from this study, qualitative and quantitative descriptive are used in analyzing waste management.

## **FINDINGS AND DUSCUSSION**

Based on the results of the research conducted, it can be concluded that **First**, the results of the *Confirmatory Factor analysis* (CFA) show that the factors that affect the income of MSME traders are the Old Business Factor (X1), Capital (X2), and Technology Use (X3). **Second**, the Old Business Variable does not have a significant effect on the income of MSME traders which is indicated by the value of Sig. Length of Business (X1) to Income (Y) is  $0.284 > 0.05$  and t count  $1.083 < t$  table  $2.006$  so it can be concluded that H1 is rejected which means that there is no effect of Business Length (X1) on

MSME Merchant Income (Y). **Third**, the Capital Variable has a significant effect on the income of MSME traders which is indicated by the value of Sig. Capital (X2) to Income (Y) is  $0.004 < 0.05$  and  $t \text{ count } 3,051 > t \text{ table } 2.006$  so it can be concluded that H2 is accepted which means that there is an influence of Capital (X2) on Income (Y). **Fourth**, the Variable Use of Technology has a significant effect on the income of MSME traders which is shown by the value of Sig. Use of Technology (X3) to Income (Y) is  $0.029 < 0.05$  and  $t \text{ count } 2,240 > t \text{ table } 2.006$  so it can be concluded that H3 is accepted which means that there is an effect of Technology Use (X3) on Income (Y).

## CONCLUSION AND RECOMMENDATION

Based on the results of research conducted on MSME traders of the type of staple food shop in Wampu District, suggestions can be given, namely as follows **First**, traders should increase capital so that the needs for trade can be met so that traders will develop better and will get more profits. **Secondly**, In promoting merchandise should traders use more technology as it can affect Traders' income to increase Revenue. **Third**, It is necessary to study other factors that can affect the income of traders in order to increase income.

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