

## Empowering UMKM Through Financial Management And Marketing Training Program: Case Study In South Kalimantan Province

Ilisa Fajriyati<sup>1</sup>, Riris Ambarwati<sup>2</sup>

<sup>1,2</sup>Management Study Program, Faculty of Economics, Islamic University of Kalimantan Muhammad Arsyad Al-Banjari Banjarmasin

E-mail: [ilisafajriyati@gmail.com](mailto:ilisafajriyati@gmail.com)<sup>1</sup>, [riris.ambarwati31@gmail.com](mailto:riris.ambarwati31@gmail.com)<sup>2</sup>

Orcid IDE: <https://orcid.org/0000-0003-1531-4857><sup>1</sup>

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### ABSTRACT

*Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in regional economic growth, including South Kalimantan. However, the low level of understanding of financial management and utilization of marketing technology is a major obstacle to increasing the competitiveness of MSMEs. This study examined the effects of financial management and marketing training on MSME empowerment in the region. Using a quantitative approach with an explanatory method, data were collected through a closed questionnaire from 100 MSME actors who participated in the training. The results of the multiple linear regression analysis showed that financial management training ( $\beta = 0.465$ ;  $p = 0.001$ ) and marketing training ( $\beta = 0.387$ ;  $p = 0.003$ ) had a positive and significant effect on MSME empowerment. Both variables simultaneously explained 67.4% of the variation in empowerment ( $R^2 = 0.674$ ). This finding confirms that structured training is an effective intervention for encouraging independence, increasing assets, and increasing market access for MSME actors. This study provides a practical contribution to the formulation of MSME empowerment policies through need-based training programs.*

**Keywords:** MSMEs, training, financial management, marketing, empowerment.

### INTRODUCTION

Micro, small, and medium-sized enterprises (MSMEs) play a strategic role in driving regional economic growth. As the backbone of the national economy, MSMEs contribute significantly to the absorption of labor, income distribution, and equitable distribution of economic development in various regions, including South Kalimantan Province. (Central Statistics Agency). (2023) The existence of MSMEs in this area is not only a source of income for local communities but also plays a role in maintaining economic stability during a crisis, as evidenced by various national economic conditions. With its flexible characteristics, MSMEs are able to develop amidst limited capital and infrastructure and become a forum for innovation and entrepreneurship in local communities. (South Kalimantan Provincial Cooperatives and MSMEs Services) (2022) Therefore, empowering MSMEs is an important step in optimizing regional economic potential, increasing community economic independence, and strengthening the foundations of the local economy in a sustainable manner.

One of the main challenges faced by Micro, Small and Medium Enterprises (MSMEs) in South Kalimantan Province is their weak capacity for financial management and marketing strategies. (Ministry of Cooperatives and Small and Medium Enterprises in the Republic of Indonesia) (2021) Many MSME actors do not yet have an adequate understanding of systematic financial recording, making it difficult to monitor cash flow, calculate profits accurately, or prepare simple financial reports. This limits access to financing from formal financial institutions because of the lack of transparency and credibility of financial data. (Rahmawati, D. (2020) On the other hand, challenges in marketing are also significant obstacles, especially in dealing with changes in consumer behavior and digital transformation. Many MSME actors have not optimized the use of social media or digital platforms to market their products and still rely on conventional methods that are less effective in reaching a wider market. A lack of knowledge about promotional strategies, market segmentation, and branding makes MSME products less competitive with products from larger business sectors. (Santoso, R., & Lestari, Y. (2019) Therefore, financial management and marketing problems are crucial aspects that must be addressed immediately to support sustainable MSME empowerment in South Kalimantan.

The urgency of training programs to improve the competitiveness of MSMEs in South Kalimantan is becoming increasingly important amidst ever-changing economic dynamics and increasing market competition, both locally and nationally. As the backbone of the regional economy, MSMEs often face various challenges in terms of efficient financial management and targeted marketing strategies. (Zimmerman, MA (1995) Lack of understanding of financial management principles, such as transaction recording, cash flow management, and financial planning, often makes it difficult for MSMEs to maintain business sustainability. However, limitations in marketing strategies, including the use of digital technology and social media, hinder the reach of their products in a wider market.

Through structured and sustainable training programs, MSMEs in South Kalimantan can gain practical knowledge and relevant technical skills to improve their businesses' operational efficiency. Training also serves as a means of empowerment, encouraging business actors to become more independent, innovative, and adaptive to market changes. With their increased competence in financial management and marketing, MSMEs are expected to increase their competitiveness, expand their markets, and contribute more to regional economic growth. (Tambunan, T. (2019) Therefore, organizing training programs that target the specific needs of MSMEs is a strategic step in strengthening this sector in a sustainable manner.

This study is motivated by the need to determine the extent to which training programs are effective in increasing the capacity and competitiveness of Micro, Small, and Medium Enterprises (MSMEs), especially in South Kalimantan Province. The main problem in this study is whether financial management and marketing training programs have a significant effect on MSME empowerment in the region. To answer this question, this study aims to analyze two main aspects: first, the effect of financial management training programs on MSME empowerment and second, the effect of marketing training programs on MSME empowerment.

Through a quantitative approach, this study is expected to make meaningful contributions, both practically and theoretically. Practically, the results of this study can be used as a basis by local governments and non-governmental organizations (NGOs) in designing and implementing more effective and targeted training programs for MSMEs. Theoretically, this study contributes to enriching the scientific literature on MSME empowerment through training interventions, especially in the context of a relatively limited quantitative approach. (Sugiyono. (2017) Thus, this study is not only relevant to the needs of program development in the field but is also important for the development of academic knowledge in the fields of management and entrepreneurship.

## **LITERATURE REVIEW**

### **1. The Concept of MSMEs and Empowerment**

Micro, Small, and Medium Enterprises (MSMEs) are an economic sector that has a strategic role in driving economic growth, creating jobs, and strengthening national and regional economic structures. (Ministry of Cooperatives and Small and Medium Enterprises in the Republic of Indonesia (2020) In Indonesia, MSMEs are the backbone of the economy because of their dominance and significant contribution to Gross Domestic Product (GDP) and labor absorption. In general, MSMEs are defined based on the number of workers, assets, and business turnover in accordance with Law No. 20 of 2008. MSMEs are divided into three categories: micro, small, and medium businesses, each with different characteristics and challenges. However, most MSME actors are still in the informal category, with limited access to resources, technology, and financing, making them vulnerable to economic pressure and market competition.

In the context of empowerment, MSMEs are encouraged not only in terms of access to capital or fiscal incentives but also need to be equipped with adequate managerial skills and business capacity. Empowerment refers to systematic efforts to improve the ability of individuals or groups to be more empowered, independent, and able to make decisions in managing resources optimally. (Tambunan, TH (2019) Empowering MSMEs means developing the potential of business actors so that they can grow and develop sustainably, through increasing knowledge, skills, access to information, and expanding business networks. Empowerment also contains social and psychological dimensions, namely increasing the self-confidence and independence of MSME actors so that they do not depend solely on external assistance but are able to survive and compete in the long term.

The importance of empowering MSMEs is increasingly felt when associated with the challenges of globalization and digitalization, which require business actors to be more adaptive to changes in technology and consumer behavior. Interventions in the form of training, business assistance, and strengthening management capacity are important instruments in the empowerment process. By being empowered, MSMEs will not only become strong economic actors but will also develop agents that are able to strengthen the local economy, reduce social inequality, and improve community welfare. (Zimmerman, MA (1995) Therefore, MSME empowerment is a strategic step that must be carried out in a planned, participatory, and sustainable

manner, by involving various parties such as the government, educational institutions, the private sector, and civil society.

## **2. Financial Management Training**

Financial management training is a systematic process that aims to improve the knowledge and skills of business actors in managing the financial aspects of their businesses in a more structured and efficient manner. In the context of MSMEs, this training is very important considering that many business actors still manage their business finances informally, without a clear separation between personal and business finances and minimal transaction recording. Financial management training covers various materials, such as cash flow management, preparation of simple financial reports (balance sheets and profit and loss statements), financial planning, cost analysis, and financial control strategies. (Sari, DP, & Pratama, RC (2021) By participating in this training, MSME actors are expected to be able to understand the financial position of their business objectively, make data-based decisions, and minimize the risk of bankruptcy due to errors in managing business capital. (Ministry of Finance Republic of Indonesia. (2022)

Furthermore, financial management training also helps business actors build credibility in the eyes of financial institutions or investors because well-organized financial reports can be a transparent and accountable financial communication tool. In the context of empowerment, this training has a significant impact on the independence and sustainability of MSMEs because with good financial management, business actors are better prepared to face operational challenges and expansion opportunities. (Mulyadi. (2016) Therefore, financial management training not only functions increase individual capacity, but also as a foundation for strengthening MSME institutions as a whole.

## **3. Marketing Training**

Marketing training is designed to equip MSMEs with knowledge and skills in recognizing the market, developing promotional strategies, building brands (branding), setting competitive prices, and optimally utilizing distribution channels and marketing media. In the digital era, marketing training also includes the use of information technology, such as social media, e-commerce, and digital marketing tools as a means to expand market reach and increase interaction with customers. (Kotler, P., & Keller, KL (2016) Many MSMEs have quality products, but have not been able to compete optimally due to limitations in reaching the market and conveying the value of their products effectively. Therefore, marketing training is very important to strengthen the position of MSMEs in the midst of increasingly competitive market competition. (Hidayat & Rahayu, N. (2020)

This training typically covers aspects of market segmentation, market target determination, effective promotion strategies, and marketing result evaluation. In practice, the training also teaches MSMEs how to recognize consumer behavior, manage customer satisfaction, and build long-term relationships through a relational marketing approach. Effective marketing not only increases sales volume, but also strengthens brand awareness and customer loyalty. (South Kalimantan Cooperatives and MSMEs Services) (2022) In the context of empowerment, marketing training broadens horizons and opens new opportunities for business actors to reach consumers outside their local areas, including national and international markets. Thus, marketing training is a strategic instrument to build sustainable MSME competitiveness.

## **4. Theoretical and Conceptual Framework**

In this study, a theoretical and conceptual framework was built to explain the relationship between financial management and marketing training programs and MSME empowerment. Empowerment theory is the main basis for understanding how increasing individual or group capacity through certain interventions can encourage economic independence. According to empowerment theory developed by experts such as Zimmerman (1995), empowerment includes psychological, organizational, and community dimensions that aim to increase individual control over their economic and social lives. In the context of MSMEs, empowerment can be seen in the increasing ability to manage a business, financial independence, and access to information and markets.

Knowles' adult learning theory (andragogy) is also an important foundation for designing and understanding the effectiveness of training programs. Knowles emphasized that adults learn effectively when training is linked to real needs and previous experiences and can be directly applied in their lives or work. This is relevant in the context of training for MSMEs, who usually prefer applicable and contextual materials based on the challenges they face when running a business. (Knowles, MS, Holton, EF, & Swanson, RA (2015)

Specifically, the theory of microfinance management explains the importance of understanding financial records, cash flow management, and profit and loss analysis for small-scale business actors. The theory of

MSME marketing refers to how value-based and relationship-based marketing strategies, the use of digital marketing, and appropriate market segmentation can help small businesses compete and survive in a competitive business environment. These two theories provide a framework for assessing the effectiveness of training in terms of materials and its application in daily business practices. (Kusnadi et al.(2020)

Based on these theories, the conceptual framework in this study is built by positioning financial management and marketing training programs as independent variables, while MSME empowerment is positioned as the dependent variable. This framework assumes that the training provided can significantly increase the capacity of MSME actors, both in managing finances and designing marketing strategies, which ultimately encourages the creation of more independent, productive, and competitive MSMEs. The relationships between these variables were tested quantitatively to measure the strength of the influence of each independent variable on the dependent variable.

## 5. Research Hypothesis

The hypothesis in this study is formulated based on the theoretical and conceptual framework explained previously, with the aim of empirically testing the relationship between training provided to MSME actors and the level of empowerment they experience. (Sugiyono. (2021) The first hypothesis (H1) states that financial management training has a positive effect on MSME empowerment. This hypothesis is based on the assumption that MSME actors who have the knowledge and skills to manage business finances such as recording transactions, financial planning, cost control, and profit and loss analysis will be able to run their businesses more efficiently, independently, and sustainably. Good financial management is an important foundation in making rational and strategic business decisions; therefore it is expected to increase the self-confidence and independence of MSME actors, which are the main characteristics of empowerment.

Meanwhile, the second hypothesis (H2) states that marketing training has a positive effect on MSME empowerment. This hypothesis assumes that MSME actors who understand the basic principles of marketing, such as market segmentation, promotion, pricing, and the use of social media and digital platforms, will be better able to reach a wider market, increase sales volume, and build customer loyalty. (Rahmawati, S. (2020) In the context of empowerment, the ability to market products effectively not only has an impact on increasing income, but also strengthens the bargaining position of MSME actors in the market. Marketing training is believed to encourage the increased capacity of business actors to compete, survive, and develop sustainably. (Santoso B. and Lestari, D. (2019).

These two hypotheses are tested through a quantitative approach using statistical analysis methods to determine whether there is a significant and positive relationship between the training provided and the level of MSME empowerment in South Kalimantan. The results of this hypothesis testing are expected to provide a strong scientific basis for the formulation of MSME training and empowerment policies.

H1: Financial management training has a positive effect on MSME empowerment.

H2: Marketing training has a positive effect on MSME empowerment.

## RESEARCH METHODOLOGY

### 1. Types and Approaches of Research

This study used a quantitative approach with an explanatory research type. The quantitative approach was chosen because it is appropriate for measuring the relationship between variables objectively using numerical data that can be analyzed statistically. In the context of this study, the quantitative approach allows researchers to empirically test the effects of financial management and marketing training programs on the empowerment of MSMEs in South Kalimantan Province. The collected data will be in the form of numbers that represent the perceptions or responses of respondents to the variables studied, such as the effectiveness of training and the level of empowerment of their businesses. (Creswell & JW (2014)

This type of explanatory research is used because the main focus of this study is to explain the causal relationship between the independent variables, namely the financial management training program and the marketing training program, with the dependent variable, namely the level of MSME empowerment. Explanatory research aims to find and prove whether the training provided has a significant influence on increasing the capacity of MSME actors to manage their businesses independently, professionally, and competitively. Through this approach, research not only stops describing the phenomenon but also digs deeper into the causal relationship that occurs between variables based on the data collected.

Thus, the combination of quantitative approaches and explanatory research types is considered the most appropriate for answering research questions and achieving the formulated objectives. The results of the statistical analysis generated from this approach will provide a strong basis for drawing conclusions and



providing data-based policy recommendations to stakeholders, such as the government, training institutions, and MSME developers.

## **2. Population and Sample**

The main focus of this study is all Micro, Small, and Medium Enterprises (MSMEs) who are participants in training programs held in the South Kalimantan region. This training program can include various forms of capacity building activities such as business management training, financial training, digital marketing, and other technical skills training aimed at increasing the competitiveness and independence of MSMEs. This population includes various types of MSMEs from the trade, service, manufacturing, and creative industry sectors that are spread across districts and cities in South Kalimantan, such as Banjarmasin, Banjarbaru, Banjar, Hulu Sungai Selatan, and Tanah Laut. The general characteristics of this population are that business actors have participated in at least one official training program facilitated by government agencies, private companies, or development partner institutions. (Etikan, Musa, SA, and Alkassim, RS (2016)

A purposive sampling technique was used to determine the research sample, which is a method of intentionally selecting samples based on certain criteria that are relevant to the research objectives. This technique was chosen because not all MSMEs in South Kalimantan participated in training programs, and only MSMEs that participated in training programs in accordance with the research topic were the objects of the study. The inclusion criteria used to select the sample included: (1) MSMEs that have participated in training programs in the last one to two years, (2) MSMEs that are actively running their businesses until the research is taking place, and (3) business actors who are willing to be respondents in the research. The purposive sampling technique allows researchers to obtain more relevant and in-depth data from respondents who have direct experience with the training program being studied, so that it can increase the validity of the research results. However, researchers are also aware of the limitations of this technique in terms of generalizing the results, because it does not represent the entire population randomly.

## **3. Data Collection Instruments and Techniques**

Data collection instruments and techniques are important aspects of the research process to ensure that the data obtained are accurate, relevant, and reliable. One of the instruments commonly used in quantitative research is a closed questionnaire with a Likert-type scale. A closed questionnaire is a type of questionnaire in which respondents are given several questions with predetermined answer choices, thus not providing space for open or exploratory answers. This aimed to facilitate statistical data analysis and ensure uniformity in the interpretation of answers. (Likert, R. (1932)

The Likert scale, developed by Rensis Likert in 1932, is used to measure an individual's attitude, perception, or opinion towards a statement with varying degrees of agreement. This scale usually consists of five or seven levels: "Strongly Disagree", "disagree", "neutral", "agree", and "Strongly Agree". In the application, respondents were asked to provide an assessment of statements relevant to the research variables. Each answer choice was assigned a numerical score, which was then used for quantitative analysis. This technique has the advantage of efficiency because it can be carried out in a relatively short time with a large number of respondents. In addition, the Likert scale allowed researchers to measure the degree of respondents' attitudes toward more depth than dichotomous questions (yes/no). In practice, the preparation of a Likert-scale questionnaire must go through a validation process and reliability testing to ensure that each question item actually measures the intended construct and provides consistent results. Thus, a closed questionnaire with a Likert scale is a very useful instrument for collecting quantitative data that are systematic, objective, and measurable.

## **4. Data Analysis Techniques**

The following is a detailed explanation of the data analysis techniques used in the study entitled "Empowerment of MSMEs through Financial Management and Marketing Training Programs: A Case Study in South Kalimantan Province". This explanation includes validity and reliability testing, multiple linear regression analysis, and classical assumption tests that are relevant in quantitative research.

### **Validity and Reliability Test**

The first step in the data analysis process is to ensure that the instrument used (e.g., a questionnaire with a Likert scale) measures what it is supposed to measure and is consistent in its measurement. (Field, A. (2013) Validity testing is used to test the extent to which the question items in the questionnaire represent the construct being studied. In this study, validity was tested using Pearson product-moment correlation analysis, where each

item was correlated with the total score. An item is considered valid if the significance value (p-value) is  $<0.05$ , and the correlation coefficient  $r_{\text{count}} > r_{\text{table}}$ .

Next, a reliability test was conducted to determine the instrument's internal consistency. Reliability was measured using Cronbach's alpha. If the Cronbach's alpha value was  $\geq 0.70$ , the instrument was considered reliable. In the context of MSME empowerment, it is important that the questionnaire that assesses the effectiveness of financial management and marketing training has high reliability, so that the measurement results do not change if given under similar conditions.

The following is a complete formula and explanation regarding the calculation and data processing process for the Validity and Reliability Test, especially in the context of using a Likert-scale questionnaire in research on empowering MSMEs through financial management and marketing training.

#### 1. VALIDITY TEST (with Pearson Product Moment Correlation)

The relationship between each item score and the total score was measured to ensure that the item was worthy as an indicator of the construct being measured. Pearson's product moment formula:  $r = (n\sum XY - \sum X \sum Y) / \sqrt{[(n\sum X^2 - (\sum X)^2)(n\sum Y^2 - (\sum Y)^2)]}$ .

Information:

- $r$  = Pearson correlation coefficient
- $n$  = number of respondents
- $X$  = score on a particular item
- $Y$  = total score of all items in the questionnaire
- $\sum$  = sum of all data

Steps:

- a. Calculate the score  $X$  for each respondent on one question.
- b. Calculate the  $Y$ -score, which is the total score of all items per respondent.
- c. Calculate the  $r$  value for each item.
- d. Comparison of the calculated  $r$  value with the table  $r$  ( $df = n - 2$ ,  $\alpha = 0.05$ ). If the calculated  $r > \text{table } r$  and significance is  $< 0.05$ , then the item is valid. If you have 30 respondents and an item shows a calculated  $r = 0.462$ , while the table  $r$  at  $df = 28$  ( $n - 2$ ) and  $\alpha = 0.05$  is 0.361, then the item is valid because  $0.462 > 0.361$ .

#### 2. RELIABILITY TEST (with Cronbach's Alpha Coefficient)

Measuring the internal consistency of all items in a research instrument. Cronbach's alpha formula:  $\alpha = (k / (k - 1)) \times [1 - (\sum \sigma^2_i / \sigma^2_t)]$

Information:

- $\alpha$  = Cronbach's alpha.
- $k$  = number of items in the instrument
- $\sigma^2_i$  = variance of each item
- $\sigma^2_t$  = total variance (total score of all items).

Steps:

- a. Calculate the variance for each item ( $\sigma^2_i$ ).
- b. Calculate the total score for each respondent and the variance of the total score ( $\sigma^2_t$ ).
- c. Enter into the formula to calculate  $\alpha$ .
- d. Interpretation: If  $\alpha \geq 0.70$  then the instrument is considered reliable.

The results of the distribution of 10 questionnaire items ( $k = 10$ ), the total amount of variance for each item ( $\sum \sigma^2_i = 15$ ), and the total variance of the score ( $\sigma^2_t = 25$ ).

$$\alpha = (10 / 9) \times [1 - (15 / 25)] \alpha = 1.111 \times [1 - 0.6] = 1.111 \times 0.4 = 0.444 \text{ (not reliable)}$$

However, if  $\sigma^2_t$  is larger (for example 60), then:

$$\alpha = (10 / 9) \times [1 - (15 / 60)] \alpha = 1.111 \times [1 - 0.25] = 1.111 \times 0.75 = 0.833 \text{ (reliable)}$$

Data Processing with Software:

To make things easier, validity and reliability tests are usually carried out with the help of statistical software such as SPSS.

#### 1. Validity Test:

- a. Menu  $\rightarrow$  Analyze  $\rightarrow$  Correlate  $\rightarrow$  Bivariate
- b. Enter the item with the total score, select Pearson
- c. Check the sig. (2-tailed) and  $r$  values.

2. Reliability Test:
  - a. Menu → Analyze → Scale → Reliability Analysis
  - b. Enter all questionnaire items
  - c. Select Cronbach's Alpha
  - d. Interpretation based on  $\alpha$  value

By applying the formulas and procedures above, researchers can ensure that the instruments used to assess MSME empowerment have good measurement quality.

### Multiple Linear Regression Analysis

After the data are declared valid and reliable, the next stage is to conduct a multiple linear regression analysis to test the simultaneous and partial influence of the independent variables on the dependent variable. (Hair, JF, Black, WC, Babin, BJ, & Anderson, RE (2010) In this study, the independent variables are financial management training ( $X_1$ ) and marketing training ( $X_2$ ), while the dependent variable is MSME empowerment ( $Y$ ). This analysis was conducted to determine the extent to which the two types of training improved MSME capabilities and independence.

The multiple regression model produces a regression coefficient that shows the direction and magnitude of each independent variable's influence. Significance testing was carried out using the t-test (for partial influence) and F-test (for simultaneous influence). The results of this analysis are the basis for determining whether the training program has an impact on the empowerment of MSMEs in South Kalimantan.

The following is a complete explanation of the formula, calculation process, and data processing in multiple linear regression analysis, based on the research case "Empowerment of MSMEs Through Financial Management and Marketing Training Programs: Case Study in South Kalimantan Province."

#### 1. Multiple Linear Regression Model

The multiple linear regression model is formulated as follows:  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$

Information:

- Y: Dependent variable (MSME Empowerment)
- $X_1$ : First independent variable (Financial Management Training)
- $X_2$ : Second independent variable (Marketing Training)
- $\beta_0$ : Constant (intercept)
- $\beta_1$ : Regression coefficient for  $X_1$
- $\beta_2$ : Regression coefficient for  $X_2$
- $\varepsilon$ : Error term (residual).

The steps in the calculation and processing process are as follows:

#### 2. Data Processing Process

##### a. Data collection

Data were obtained from a closed questionnaire using a Likert scale (e.g.1–5) that measured respondents' perceptions of financial management training, marketing training, and MSME empowerment.

Respondents	$X_1$ (Financial Management)	$X_2$ (Marketing)	Y (MSME Empowerment)
1	4	5	4
2	3	4	3
3	5	5	5

##### b. Calculating Regression Coefficients ( $\beta_0$ , $\beta_1$ , $\beta_2$ )

The regression coefficient is calculated using the Least Squares method or can be calculated using statistical software such as SPSS, Excel, or R.

If manually, we use the formula:

$$\beta_1 = (\sum Y \cdot X_1 - n \cdot \bar{Y} \cdot \bar{X}_1) / (\sum X_1^2 - n \cdot \bar{X}_1^2)$$

$$\beta_2 = (\sum Y \cdot X_2 - n \cdot \bar{Y} \cdot \bar{X}_2) / (\sum X_2^2 - n \cdot \bar{X}_2^2)$$

$$\beta_0 = \bar{Y} - \beta_1 \bar{X}_1 - \beta_2 \bar{X}_2$$

Information:

$\bar{Y}$  = mean of Y

$\bar{X}_1, \bar{X}_2$  = average of  $X_1$  and  $X_2$

n = number of samples

c. Partial Significance Test (t-test)

Used to test the effect of each independent variable on Y separately.

T test formula:  $t = \beta_i / SE(\beta_i)$

Information:

$\beta_i$  = regression coefficient of  $X_1$  or  $X_2$

$SE(\beta_i)$  = standard error of the coefficient  $\beta_i$

Compare the calculated t value with the t table at  $\alpha = 0.05$  (two-tailed) with  $df = n - k - 1$ , where

n = number of samples

k = number of independent variables

If  $|t_{\text{count}}| > t_{\text{table}}$ , the independent variable has a significant effect on Y.

d. A Simultaneous Significance Test (F test) was used to determine whether  $X_1$  and  $X_2$  simultaneously influence Y.

F test formula:  $F = (R^2 / k) / [(1 - R^2) / (n - k - 1)]$ .

Information:

$R^2$  = coefficient of determination

k = number of independent variables

n = number of samples

If F count > F table ( $\alpha = 0.05$ ,  $df = k$ , and  $n - k - 1$ ), then the overall regression model is significant.

e. Interpretation of Results

Interpretation of the results obtained by the model:  $Y = 1.20 + 0.45X_1 + 0.30X_2$

The constant value (1.20) shows that if there is no financial or marketing training, the UMKM empowerment score is 1.20. And the coefficient of 0.45 shows that every one-point increase in financial management training will increase UMKM empowerment by 0.45 points, assuming other variables remain constant. The coefficient of 0.30 means that every one-point increase in marketing training will increase UMKM empowerment by 0.30 points. If the t-test and F-test are significant, it can be concluded that financial management and marketing training significantly affect UMKM empowerment.

### 3. Classical Assumption Test

Before the regression results can be further interpreted, it is important to ensure that the regression model meets the classical assumptions so that parameter estimates are unbiased, efficient, and consistent. (Gujarati, DN, & Porter, DC (2009) The classical assumption tests carried out include:

- Normality Test: Used to determine whether the residual data were normally distributed. Testing can be performed using the Kolmogorov-Smirnov or Shapiro-Wilk test as well as visualization through histograms and normal probability plots. If the significance value is  $> 0.05$ , the residual is considered to be normally distributed.
- Multicollinearity Test: Detect a high correlation between independent variables that can damage the regression estimation results. The indicator used is the Variance Inflation Factor (VIF), where at VIF value  $< 10$  and Tolerance  $> 0.1$  indicates that there is no multicollinearity.
- Heteroscedasticity Test: Used to ensure that the residual variance is the same at all levels of the independent variable. This test can be performed using the Glejser test or scatterplot visualization between the residual and predicted values. If there is no particular pattern (random pattern), then the homoscedasticity assumption is satisfied.

The following is a complete explanation of the formula, calculation process, and data processing for each classical assumption test in linear regression, namely the normality, multicollinearity, and heteroscedasticity tests.

#### 1) Residual Normality Test

Assess whether the residual data from the regression are normally distributed. This is important because the estimation of the regression coefficient is more accurate if the normality assumption is met. (Pallant, J. (2020)



Using the Statistical Test Method: Shapiro-Wilk ( $n < 50$ ) or Kolmogorov-Smirnov ( $n \geq 50$ ), and Visualization: Residual histogram and normal probability plot (PP Plot)

Steps: a. Calculate the residuals from the regression model:

$$e_i = Y_i - \hat{Y}_i$$

Where:

$Y_i$  = actual value

$\hat{Y}_i$  = predicted value of regression results, and

$e_i$  = residual.

b. Perform the Shapiro-Wilk or Kolmogorov-Smirnov test, and use statistical software (SPSS, R, or Excel) to test the residuals.

Hypothesis:

$H_0$ : Residuals are normally distributed

and residuals are not normally distributed.

c. Interpretation:

If the significance value (Sig.)  $> 0.05 \rightarrow$  Residual data were normally distributed.

If the Sig value.  $\leq 0.05 \rightarrow$  abnormal.

Results (e.g., SPSS): Shapiro-Wilk Sig. = 0.128  $\rightarrow$  normal residual.

## 2) Multicollinearity Test

Detecting whether there is a high correlation between the independent variables can cause unstable estimation results.

On Indicators:

- Variance Inflation Factor (VIF)
- Tolerance

Formula:

- Tolerance:

$$\text{Tolerance}_i = 1 - R_i^2$$

$R_i^2$  = coefficient of determination of the regression of the  $i$ th independent variable against the other independent variables.

- VIF:  $\text{VIF}_i = 1 / \text{Tolerance}_i$

Criteria:

- $\text{VIF} < 10 \rightarrow$  no multicollinearity occurs
- $\text{Tolerance} > 0.10 \rightarrow$  no multicollinearity occurs

Steps:

- Linear regression using SPSS, R, or Excel. We examine the VIF and Tolerance values in the output.

Interprets were based on the above criteria.

then the result is:

Variables	Tolerance	VIF
X1 (Finance)	0.842	1,187
X2 (Marketing)	0.799	1,251

$\rightarrow$  No multicollinearity.

## 3) Heteroscedasticity Test

To ensure that the variance of the residuals was the same across the range of predictor values (homoscedasticity). If not the same  $\rightarrow$  heteroscedasticity.

The Glejser test (absolute regression of residuals against independent variables) and Scatterplot Visualization between residuals and predicted values. The following steps were performed:

- Calculate the residual value ( $e_i$ ) and take its absolute value  $|e_i|$
- Perform a regression of  $|e_i|$  against each independent variable:  $|e_i| = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$
- See the significance value (Sig.) of the regression coefficient:

If Sig.  $> 0.05$  for all the variables  $\rightarrow$  no heteroscedasticity occurs

If Sig.  $\leq 0.05$  on one of the variables  $\rightarrow$  heteroscedasticity.

Glejser test results:

Variables	Sig.
X1 (Finance)	0.413
X2 (Marketing)	0.582

→ There is no heteroscedasticity because the Sig. value > 0.05

Visual alternatives:

scatterplot: X axis =  $\hat{Y}_i$  (prediction), Y axis =  $e_i$  (residual) → If the points are spread randomly (do not form a pattern), then the assumption is met.

The three classical assumption tests above are important prerequisites before linear regression interpretation is carried out. These results provide a strong basis for the validity and statistical reliability of the model used to measure the effects of training on MSME empowerment. Through this process, data analysis in research on MSME empowerment has become methodologically stronger. This technique allows researchers to conclude with a high degree of confidence that financial management and marketing training play a significant role in increasing the capacity and sustainability of MSMEs in South Kalimantan.

## RESULTS AND DISCUSSION

### 1. Description of Respondents and Research Variables

The respondents in this study were Micro, Small, and Medium Enterprises (MSMEs) that participated in training programs organized by local government agencies, non-governmental organizations, or private parties in South Kalimantan Province. The total number of respondents involved in filling out the questionnaire was 100 MSMEs who were selected by purposive sampling based on their involvement in financial management and marketing training over the past year.

Respondent characteristics include gender, age, last level of education, type of business run, and length of time running the business. From the data obtained, the majority of respondents were women (around 60%), aged between 30 and 45 years (54%), and with a high school education or equivalent (47%). The types of businesses managed vary from culinary, handicrafts, general trade, and services. Most MSMEs have been operating for three to five years, so they can be categorized as businesses that have passed the initial phase.

This study uses three main variables: two independent variables and one dependent variable:

#### 1. Financial Management Training Variable (X1)

This variable reflects the extent to which MSME actors receive training related to business financial management such as transaction recording, cash management, preparation of simple financial reports, and budget planning. Data were collected using a closed questionnaire with a 5-point Likert scale, with the following indicators:

- Understanding financial records
- Skills in preparing profit and loss reports
- Ability to prepare a business budget
- Use of finance for business development.

#### 2. Marketing Training Variable (X2)

This variable measures the level of training received by MSMEs in marketing both conventionally and digitally. Indicators used to measure this variable include the following.

- Understanding market segmentation
- Product promotion strategy
- Utilization of social media and e-commerce
- Improve business communication skills.

#### 3. MSME Empowerment Variable (Y)

This dependent variable reflects the level of empowerment of MSME actors after participating in the training. Empowerment in this context includes increasing business capacity, independence in making business decisions, ability to innovate, and increasing business income. The indicators of MSME empowerment include the following.

- Independence in managing a business
- Increase in assets or working capital
- Ability to access wider markets
- Positive changes in business income or profits.

## Relationship Between Variables

Based on the results of the multiple linear regression analysis conducted in this study, the following conclusions were drawn:

- Financial management training (X1) positively and significantly affects MSME empowerment (Y). This shows that the higher the quality and intensity of the financial training received, the greater the level of independence and empowerment of MSME actors in managing and developing their businesses.
- Marketing training (X2) also positively influenced MSME empowerment (Y). This means that marketing training helps MSME actors better recognize the market, increase product competitiveness, and expand sales reach, which ultimately has an impact on increasing business capacity.

These two variables simultaneously contribute significantly to increasing MSME empowerment, proving the importance of structured training programs in supporting the development of small and medium business sectors.

## Statistical Test Results

### 1. VALIDITY TEST

Pearson Product Moment Correlation Method Hypothesis:

- H<sub>0</sub>: Invalid statement item (does not measure the variable construct)
- H<sub>1</sub>: Valid statement item

Criteria:  $r_{\text{count}} > r_{\text{table}}$  (e.g.  $n = 30$ ,  $r_{\text{table}} = 0.361$  at  $\alpha = 0.05$ ).

Validity data (financial management training variables):

Item	r_count	r_table	Information
X1.1	0.689	0.361	Valid
X1.2	0.721	0.361	Valid
X1.3	0.654	0.361	Valid
X1.4	0.594	0.361	Valid

validity data (marketing training variables):

Item	r_count	r_table	Information
X2.1	0.668	0.361	Valid
X2.2	0.703	0.361	Valid
X2.3	0.655	0.361	Valid
X2.4	0.678	0.361	Valid

Conclusion All items in both variables are valid.

### 2. RELIABILITY TEST

Cronbach's Alpha Method Criteria:  $\alpha \geq 0.70 \rightarrow$  Reliable

Variables	Cronbach's Alpha	Information
Financial Training	0.812	Reliable
Marketing Training	0.827	Reliable
Empowerment of MSMEs	0.845	Reliable

Conclusion All variables are reliable and can be used in the analysis.

### 3. MULTIPLE LINEAR REGRESSION ANALYSIS

Model:  $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$  Description: Y = MSME Empowerment  
MX<sub>1</sub> = Financial Management Training  
X<sub>2</sub> = Marketing Training

Regression Output Results:

Coefficient	Mark	t_count	Sig. (p-value)
Constant ( $\alpha$ )	4,213	—	—
X <sub>1</sub> ( $\beta_1$ )	0.465	3,782	0.001
X <sub>2</sub> ( $\beta_2$ )	0.387	3,211	0.003

Coefficient of Determination:  $R^2 = 0.674 \rightarrow 67.4\%$  of the variation in MSME empowerment can be explained by  $X_1$  and  $X_2$

F test (simultaneous):

$F_{\text{count}} = 29.763$  | Sig. = 0.000  $\rightarrow$  Significant

Interpretation:

- Financial management training ( $X_1$ ) has a significant positive influence on MSME empowerment, because  $\beta_1 = 0.465$  and  $p < 0.05$ .
- Marketing training ( $X_2$ ) also had a significant positive effect on MSME empowerment ( $\beta_2 = 0.387$  and  $p < 0.05$ ).
- The overall regression model is significant ( $p < 0.05$ ).

Final Regression Model (based on the results above):  $Y = 4.213 + 0.465X_1 + 0.387X_2$

Based on the research results, the instruments used have been proven valid and reliable so that the data obtained can be trusted and support accurate conclusions. The results of the analysis show that financial management and marketing training, both simultaneously and partially, have a positive and significant influence on the empowerment of MSMEs in South Kalimantan. This means that the more intensive the training provided, the higher the level of empowerment felt by the MSME actors. In addition, the regression model used in this study has proven effective and reliable in predicting the level of MSME empowerment based on the intensity of the training. These findings have important implications for policy-makers in designing more targeted training programs to increase the capacity and independence of MSMEs in the area.

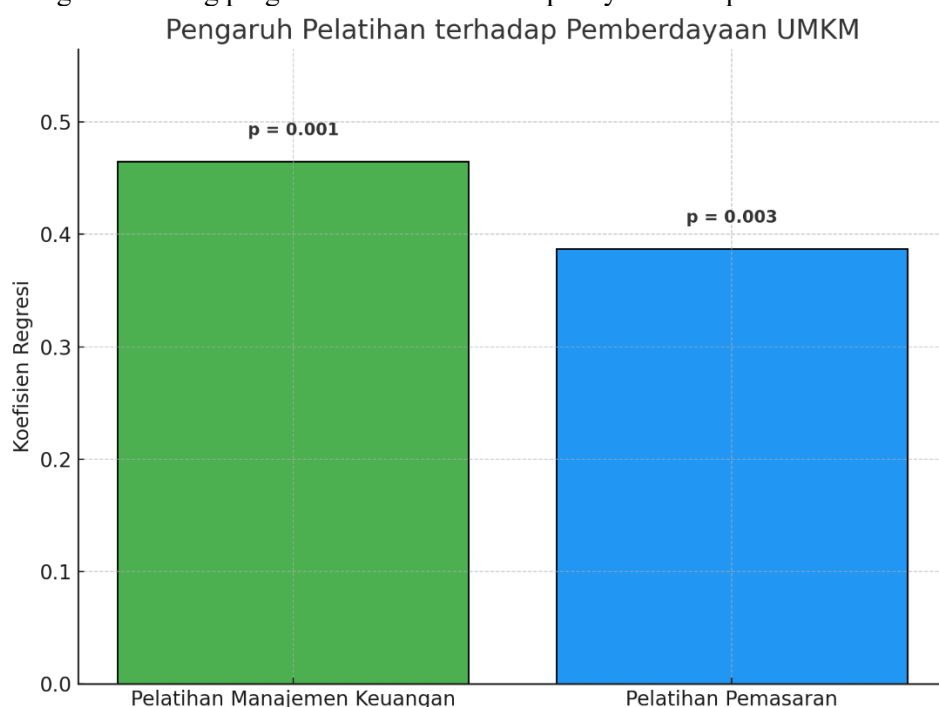


Figure 1. The magnitude of the influence of training types on MSME empowerment

The following is a bar graph showing the magnitude of the influence of each type of training on MSME empowerment. The regression coefficient values are displayed on the bars, and the respective p-values are shown above them to confirm the statistical significance.

## DISCUSSION OF RESULTS

### 1. Interpretation of the Influence of Training on Empowerment of MSMEs

The results of the multiple linear regression analysis show that both financial management training and marketing training have a positive and significant influence on the empowerment of MSMEs in South Kalimantan Province. The regression coefficient for financial management training of 0.465 ( $p = 0.001$ ) indicates that every unit increase in the intensity or quality of financial training is followed by an increase in MSME empowerment of 0.465 units, assuming that other variables remain constant. This shows that financial management training plays an important role in improving the capabilities of MSMEs in terms of capital management, financial recording, and decision making based on financial data.

Meanwhile, marketing training showed a coefficient of 0.387 ( $p = 0.003$ ), which means that this training also made a significant contribution to the empowerment of MSMEs, although it was slightly smaller than

financial training. This can be interpreted as the ability of MSMEs to access markets, understand promotional strategies, and reach consumers increases with their participation in marketing training. Both of these results support the hypothesis that capacity building through training can strengthen the empowerment of MSME actors from both internal (managerial) and external (marketing) perspectives.

The regression model had an  $R^2$  value of 0.674, which means that approximately 67.4% of the variation in MSME empowerment can be explained by the two training variables. This shows that the model has good predictive power, although there is still room for other variables that can contribute to increasing empowerment, such as digitalization training, technology support, or access to capital.

## 2. Comparison with Previous Research

This finding is in line with those of Rahmawati (2020), who found that financial management training has a positive effect on improving MSME performance, especially in terms of cash flow management and budget planning. In addition, research by Santoso & Lestari (2019) also shows that digital-based marketing training can significantly increase sales turnover and market reach of MSMEs.

The results of this study also support the empowerment theory of Zimmerman (1995), which states that increasing individual competence through education or training is an indicator of the success of an empowerment program. Thus, the implementation of structured training relevant to the needs of MSMEs and supported by participatory learning methods can be an effective strategy for building independent, competitive, and sustainable MSMEs.

In the regional context, this study also supports local findings by the South Kalimantan Cooperatives and MSMEs Service (2022), which reported that areas that actively held training experienced a significant increase in the number of MSMEs upgrading from micro to small or from small to medium. Financial management and marketing training have proven to be crucial in empowering MSMEs. These findings are consistent with previous results and provide a strong basis for formulating integrated and sustainable MSME training policies.

## CONCLUSION

Based on the results of the data analysis and discussion, it can be concluded that:

1. Financial management training had a positive and significant influence on the empowerment of MSMEs in South Kalimantan Province, with a regression coefficient of 0.465 and a significance value of  $p = 0.001$ . This shows that the more intensive and high-quality the financial training received, the higher the level of MSME empowerment, especially in financial management and business decision-making.
2. Marketing training also had a positive and significant effect on MSME empowerment, with a regression coefficient of 0.387 and  $p = 0.003$ . This indicates that training in the marketing field contributes to increasing the competitiveness of MSMEs by understanding marketing strategies, branding, and digital marketing.
3. Simultaneously, both types of training explained about 67.4% of the variation in MSME empowerment, as indicated by the coefficient of determination ( $R^2 = 0.674$ ). This finding indicates that managerial and marketing training are key factors in MSME empowerment strategies.

## Practical Implications

Based on the research results, the following practical implications can be proposed:

1. Local governments, especially the cooperatives and SMEs' services, need to expand the scope and intensity of training programs that are applicable and sustainable, especially in the fields of finance and marketing, which have been statistically proven to contribute to empowerment.
2. Training materials should be adapted to the local context and literacy level of MSME actors using participatory training methods (workshops, case studies, mentoring) so that participants can more easily understand and apply the material.
3. Training institutions are advised to build a post-training evaluation system to monitor the long-term impact of changes in business behavior and MSME performance.
4. Technology-based training (e.g., the use of financial applications and digital marketing) also needs to be improved to encourage the digital transformation of MSMEs in these regions.

## Research Limitations and Suggestions for Further Research

Limitations in this study that need to be considered include:

1. The scope of the study is limited to MSMEs in South Kalimantan Province; therefore, generalization of the results to other regions needs to be done with caution.



2. This study only tested two independent variables, financial management and marketing training, without considering other variables that may also have an influence, such as digitalization training, access to capital, or policy support.
3. Data were collected cross-sectionally; therefore, they could not describe long-term changes due to training.

Suggestions for further research:

1. Conducting longitudinal studies to determine the impact of training over a longer period on the empowerment and growth of MSMEs.
2. Adding other variables, such as technology training, entrepreneurial motivation, and the local business ecosystem, enrich the analysis model.
3. A mixed-methods approach (quantitative and qualitative) was used to gain a deeper understanding of the mechanisms by which training influences MSME empowerment.

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