



How Do Training Programs and Entrepreneurial Characteristics Affect IKM Development?

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Abstract: This study is motivated by data showing the significant contribution of training organized by the Tarakan City Department of Industry and Manpower to the growth of New Entrepreneurs (WUB) in Small and Medium Industries (IKM) over the past several years. The purpose of this study is to analyze the effect of training and entrepreneurial characteristics on the development of Small and Medium Industries (IKM) facilitated by the Tarakan City Department of Industry and Manpower. This study applies a quantitative descriptive method by distributing questionnaires to 80 respondents selected using a random sampling technique. Data analysis was carried out using multiple linear regression with the assistance of SPSS Version 25.0. The results of the study show that the training variable has a positive and significant effect on IKM development, while the entrepreneurial characteristics variable has a negative and insignificant effect on IKM development. The implication of these findings is the importance of focusing on effective training to improve the performance of IKM in Tarakan City, as well as the importance of conducting regular evaluations to ensure that training programs remain relevant and beneficial.

Keywords: Training; New Entrepreneurs; Entrepreneurial Characteristic; IKM Development

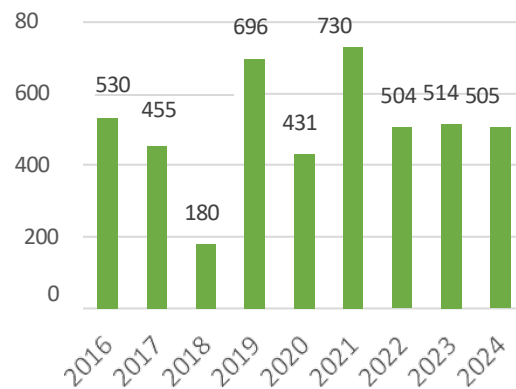
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INTRODUCTION

In this era of globalization, the role of Micro, Small, and Medium Enterprises (MSMEs) and Small and Medium Industries (SMIs) is becoming increasingly significant in the Indonesian economy. MSMEs are known as the driving force of the economy, capable of absorbing a large amount of labor and making a substantial contribution to the national Gross Domestic Product (GDP). SMIs, which are part of the MSME sector, have their own characteristics and challenges, particularly in terms of technology and production capacity. Therefore, understanding the differences between MSMEs and SMIs is essential in the context of this research. Small and Medium Industries (SMIs) play a very important role in the Indonesian economy, including in Tarakan City. SMIs not only make a significant

contribution to the Gross Domestic Product (GDP) but also absorb a large proportion of the workforce in Indonesia. Based on data from the Central Statistics Agency, SMIs contribute around 60% of the total national GDP and absorb more than 97% of the workforce (BPS, 2022). Therefore, the development of SMIs is one of the main priorities in regional and national economic development strategies.



Source: Performance Report of Department of Industry and Manpower, 2024

Figure 1. Number of SMIs (Small and Medium Industries).

Figure 1 illustrates the fluctuating growth in the number of IKM units in Tarakan City during the 2016–2024 period, with the highest figure in 2021 at 730 units and the lowest in 2018 at 180 units. This trend shows that after a sharp decline in 2017–2018, the number of IKM temporarily surged in 2019, fell again in 2020, then increased significantly in 2021 before returning to fluctuations at around 500 units in 2022–2024, indicating the dynamics of economic conditions and the effectiveness of coaching and training policies for IKM in Tarakan City. The Department of Industry and Manpower of Tarakan City has a strategic role in supporting IKM development through various training and coaching programs. These programs are designed to enhance the skills and competencies of IKM entrepreneurs so they can compete and adapt to market changes. Effective training can increase productivity and innovation in the IKM sector and covers various aspects, ranging from technical skills improvement to managerial capacity development (Hermawan, 2021). Technical skills and managerial capabilities are forms of entrepreneurial characteristics that are important factors influencing IKM success, including high enthusiasm, a strong desire to continuously innovate, a strong sense of responsibility, high ambition to achieve, and the courage to take risks (Indarto, I., & Santoso, 2020). However, despite many studies on training and entrepreneurial characteristics, there is still a research gap in integrating these two aspects to evaluate their combined impact on IKM development in Tarakan City.

As one of the ways to address the challenges faced by IKM, the Department of Industry and Manpower of Tarakan City organizes training programs for IKM and new entrepreneurs. Training plays an important role in IKM development because it helps improve the skills and knowledge of business actors. With appropriate training, IKM owners can understand the importance of certification, marketing strategies, digital technology, and product innovation that can enhance their business competitiveness. In addition, continuous training ensures that IKM remain up to date with the latest developments in the business world so they can adapt

to market changes and consumer needs. This not only improves efficiency and productivity but also opens new opportunities for business growth and expansion, which ultimately contributes to the local and national economy. The role of the Department of Industry and Manpower in providing training, support, and coaching for IKM is therefore vital in developing entrepreneurial skills and capabilities, which in turn can influence IKM success through innovative, creative, and adaptive entrepreneurial characteristics. The urgency of this research lies in the strategic role of IKM as one of the main pillars of the Indonesian and Tarakan City economies, both in terms of their contribution to GDP and employment. At the same time, the sharply fluctuating growth data of IKM units from year to year indicates that the sustainability and competitiveness of IKM are not yet fully stable, thus requiring more targeted interventions through effective policies and coaching programs. In this context, training programs organized by the Department of Industry and Manpower of Tarakan City and the entrepreneurial characteristics of IKM actors become key factors that need to be examined systematically so that empirical evidence can be provided as a basis for policy formulation and the implementation of training programs that are truly relevant, well-targeted, and have a real impact on strengthening IKM in Tarakan City.

LITERATURE REVIEW

Theory of Planned Behaviour

Manongko (2018), within the framework of the Theory of Planned Behavior, explains how an individual's intention to perform a behavior is determined by three main factors: attitude toward the behavior, subjective norms, and perceived behavioral control. Attitude toward the behavior includes the individual's beliefs and evaluations of the outcomes of that behavior. Subjective norms refer to beliefs about the support or disapproval of important people around the individual. Perceived behavioral control reflects the extent to which individuals feel they have control over performing a particular behavior (Achmat, Z. 2010). In this context, the theory can be used to analyze entrepreneurial intentions in applying the skills acquired from training.

Entrepreneurship Theory

Entrepreneurship is the ability of individuals to think broadly and create new things that form the basis for choosing business opportunities, which can lead to success and the achievement of the ventures they run (Setyaningrum et al., 2024). Meanwhile, Hastuti (2020) defines entrepreneurship as the capacity to generate goods or services that create added value while facing risks in business. Entrepreneurship is also the process experienced by an entrepreneur to start and run a business by applying a business concept that can provide profit and benefits for the enterprise. Furthermore, entrepreneurship plays an important role as a key driver of economic development and growth. In the context of Small and Medium Industries (IKM), this theory is highly relevant because it emphasizes the importance of innovative and creative entrepreneurs in creating new products, more efficient production processes, and new markets.

Human Capital Theory

Human capital refers to the value possessed by individuals in an organization based on their skills, knowledge, experience, and other attributes that contribute to the organization's productivity and success. Human capital includes education, work experience, technical skills (hard skills), and interpersonal skills (soft skills) such as communication, critical thinking, and problem-solving, and in the digital era it also covers digital literacy and the ability to adapt to new technologies (Maulana, 2021). In the context of Small and Medium Industries (IKM), human capital is crucial because the skills and knowledge of the individuals involved directly influence business performance and growth.

Training

Training is a planned effort by a company to facilitate the learning of competencies, knowledge, skills, and behaviors that are related to employees' jobs. In this context, training aims to provide practical insights and skills that can be directly applied in the operations of small and medium industries (IKM), thereby improving productivity and competitiveness in the market. The training organized by the Department of Industry and Manpower of Tarakan City for IKM can be described as a systematic and planned learning process designed to enhance the skills, knowledge, and competencies of small and medium business actors.

According to Hastuti (2020), an entrepreneur is an individual who can identify business opportunities, develop creative ideas, and take risks to create new products or services that have added value. Entrepreneurs do not only act as business owners but also as innovators who are able to transform ideas into reality through various business strategies. In this process, entrepreneurs must be able to manage resources, including capital, labor, and raw materials, effectively and efficiently to achieve predetermined goals. Research conducted by Yasin (2016) also emphasizes that entrepreneurs must have a long-term vision and mental resilience to face various challenges and uncertainties in the business world.

METHOD

The research design employs a quantitative method with a survey approach to examine the influence of training and entrepreneurial characteristics on the development of Small and Medium Industries in Tarakan City. The population in this study consists of all participants of IKM training programs organized by the Department of Industry and Manpower of Tarakan City, namely individuals who have joined training activities aimed at improving entrepreneurial skills and knowledge to develop their businesses. The total population in this study is 100 people, and based on the Slovin formula, the research sample is determined to be 80 respondents. This study uses multiple linear regression as the data analysis technique, with the regression model serving as the main tool for testing and analyzing the relationship between training, entrepreneurial characteristics, and IKM development.

Validity Test

A validity test was conducted to examine whether each item in the questionnaire is capable of measuring the intended construct. The correlation coefficient (computed r) for each item was compared with the critical r -table value at a significance level of 5%. Items with a

computed r value greater than the r -table threshold were considered valid and included in the subsequent analysis.

Reliability Test

A reliability test using Cronbach's Alpha was performed to assess the internal consistency of the items within each variable. An instrument is considered reliable if the Cronbach's Alpha value exceeds 0.70. Variables with Alpha values above this threshold are regarded as consistent and trustworthy for use in this research.

Classical Assumption Tests

Before performing multiple linear regression, several classical assumption tests were carried out:

1. Normality Test

The normality of the residuals was tested using the Kolmogorov-Smirnov test. The residuals are deemed normally distributed if the significance value is greater than 0.05.

2. Multicollinearity Test

Multicollinearity was examined by observing the Variance Inflation Factor (VIF) and tolerance values. A model is considered free from multicollinearity if the VIF value is less than 10 and the tolerance value is greater than 0.10.

3. Autocorrelation

Autocorrelation was tested using the Durbin-Watson statistic. A Durbin-Watson value between 1.5 and 2.5 indicates that there is no autocorrelation in the residuals.

4. Heteroscedasticity Test

Heteroscedasticity was assessed using a scatterplot of standardized residuals against predicted values. If the points are randomly dispersed and do not form a specific pattern, the model is considered free from heteroscedasticity.

Multiple Linear Regression

To analyze the effect of the independent variables, namely Training (X1) and Entrepreneurial Characteristics (X2), on the dependent variable, IKM Development (Y), this study employs multiple linear regression analysis. The regression model estimates the magnitude and direction of the influence of each independent variable on IKM development while controlling for the other variable in the model.

Partial Test

The partial effect of each independent variable on IKM development was examined using the t -test. An independent variable is considered to have a significant effect if the significance value (p -value) is less than 0.05.

Simultan Test

The simultaneous effect of Training and Entrepreneurial Characteristics on IKM development was tested using the F -test. The model is considered significant as a whole if the significance value of the F -statistic is less than 0.05.

ANALYSIS AND DISCUSSION

The object of this research is the training programs organized by the Department of Industry and Manpower of Tarakan City. The types of training provided in 2024 are used as the focus of observation and analysis. The results of the study are presented as follows:

Respondent Characteristics by Gender

Table 1. Respondents Data by Gender.

Gender	Number	Percentage
Male	9 People	11,25%
Female	71 People	88,75%
Total	80 People	100%

Source: Data Processed, 2025

Based on the presented data, there are 9 male respondents, accounting for 11.25% of the total respondents, while the majority are female, with 71 respondents, equivalent to 88.75% of all participants.

Respondent Characteristics by Age

Table 2. Respondents Data by Age.

No.	Age	Number	Percentage
1	20-29	20 Orang	25,00%
2	30-39	26 Orang	32,50%
3	40-49	27 Orang	33,75%
4	50-59	7 Orang	8,75%
Total		80 Orang	100%

Source: Data Processed, 2025

Table 2 presents the age distribution of the 80 respondents who participated in this study. It shows that the 20–29 years age group consists of 20 individuals, representing 25% of the total respondents, while the 30–39 years age group has the highest number of respondents, namely 26 individuals or 32.5% of the sample.

Validity Test

The results of the validity test show that each indicator of every variable has a value above the required threshold of 0.2172. Therefore, all statement items in these variables are declared valid and are ready to be processed in the subsequent testing stages. All question items have an r-calculated value greater than the r-table value (0.2172), indicating that all items are valid, meaning that the questionnaire instrument is capable of measuring what it is intended to measure.

Table 3. Results of Validity Test

Variable	Number	r-calculated (range)	r-table (n=80; $\alpha=0,05$)	Note
Training (X1)	10	0,313 – 0,762	0,2172	valid
Entrepreneurial Characteristics (X2)	8	0,295 – 0,691	0,2172	valid
IKM Development (Y)	7	0,322 – 0,744	0,2172	valid

Source: Data Processed, 2025

Reliability Test**Table 4.** Results of Reliability Test

Variable	Cronbach's Alpha	Criteria (>0,70)
Training (X1)	0,889	Reliabel
Entrepreneurial Characteristics (X2)	0,786	Reliabel
IKM Development (Y)	0,807	Reliabel

Source: Data Processed, 2025

All variables have a Cronbach's Alpha value greater than 0.70, indicating that the instrument is reliable, consistent, and trustworthy for use in this study. The training variable (X1) is even classified as highly reliable, with a Cronbach's Alpha of 0.889.

Classical Assumption Tests**Table 5.** Results of Classical Assumption Tests

Type of Test	Analysis Result	Criteria	Conclusion
Normality	Sig. Kolmogorov-Smirnov > 0,05	Sig. > 0,05 → normality	residual data are normally distributed.
Multicollinearity	VIF X1 = 1,176; VIF X2 = 1,176	no multicollinearity.	no multicollinearity.
Autocorrelation	Durbin-Watson (DW) = 2,429	1,5 < DW < 2,5 → no autocorrelation	no autocorrelation.
Heteroscedasticity	Scatterplot	randomly dispersed → no clear pattern	no heteroscedasticity.

Source: Data Processed, 2025

The results of the classical assumption tests indicate that the regression model fulfills all required criteria. The Kolmogorov-Smirnov significance value is greater than 0.05, showing that the residuals are normally distributed and the regression model is appropriate to use. The Variance Inflation Factor (VIF) values are below 10, indicating that there is no disturbing multicollinearity between the independent variables, namely Training and Entrepreneurial Characteristics. In addition, the Durbin-Watson value of 2.429 falls within the acceptable range of 1.5 to 2.5, which means that there is no autocorrelation in the model. The scatterplot also displays randomly dispersed points, suggesting that the residual variance is homogeneous and there is no heteroscedasticity. Therefore, all classical assumptions are met, and the multiple linear regression model used in this study is valid and can be further interpreted.

Regression Analysis

Table 5. Results of Multiple Linear Regression Analysis

Independent Variable	Coefficient (β)	Sig.	Note
Training (X1)	0,586	0,000	Significant (+)
Entrepreneurial Characteristics (X2)	0,097	0,481	Not Significant
Constant	1,421		
Adjusted R ²	0,170	-	17% of variance explained

Source: Data Processed, 2025

Results Interpretation:

1. Training is proven to be significant. This is in line with Human Capital Theory (Becker, 1993) and the study by Hermawan (2021) which shows that training improves the productivity and innovation of SMEs/IKM (Asmawati et al., 2021; Nabil Ananta Ferdinand; Fitri Eriyanti, 2025; Sri Mulyati; Sholikhah, 2022).
2. Entrepreneurial characteristics are not significant. This finding supports the results of (Rizky et al., 2022), which state that personal characteristics alone are not sufficient, but must be supported by external factors such as training, capital, and policy support.
3. The development of IKM is influenced by many other factors. The low R² value indicates the need to consider other aspects, such as access to capital (Istinganah et al., 2020), Product innovation (Indarto & Santoso, 2020), and market networks (Yasin Mohammad Zeqi, 2016)

The results of the study indicate that training has a positive and significant effect on the development of SMEs/IKM in Tarakan City, whereas entrepreneurial characteristics do not have a significant effect. Taken together, both variables still contribute to IKM development, although with a relatively small influence, so it can be concluded that capacity building through training is a key factor in driving the growth of IKM.

CONCLUSION

This study concludes that training has a positive and significant effect on the development of SMEs/IKM, so investment in training as part of human capital is a key factor in improving the capacity, performance, and competitiveness of IKM actors in Tarakan City. Meanwhile, entrepreneurial characteristics are not statistically proven to have a significant effect, although descriptive findings indicate that the ability to manage finances and the courage to take risks remain important aspects that need to be strengthened through more targeted training designs. In practical terms, these results confirm that high-quality training programs that are relevant to market needs and supported by continuous assistance have the potential to generate a real impact on strengthening IKM.

The limitations of this research include the use of a relatively small sample (80 respondents) and its focus on a single area, namely Tarakan City, so generalizing the findings to other regions should be done with caution. In addition, the variables examined only cover training and entrepreneurial characteristics, while other factors such as technological innovation, access to capital, policy support, and market conditions have not yet been incorporated into the model. The cross-sectional approach also means that this study cannot fully capture the dynamics of changes in IKM performance over the long term.

Based on these points, it is recommended that the relevant government agencies improve the quality and intensity of training programs with more applied curricula (such as financial management, risk management, and digital marketing), accompanied by post-training mentoring, stronger supporting infrastructure, and collaboration with academics and the private sector. Future researchers are advised to include other relevant variables (such as innovation, market access, and policy support), expand the geographical scope, and employ a longitudinal design so that the long-term impact of training programs on the sustainability of IKM can be observed more clearly

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