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DETERMINANTS OF MSME SUSTAINABILITY: THE ROLE OF ENTREPRENEURIAL CHARACTERISTICS, PRODUCT QUALITY, AND TECHNOLOGICAL SOPHISTICATION

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Article Info	Abstract
<p>Keywords: <i>Entrepreneurial characteristics, product quality, technological sophistication, MSME sustainability.</i></p> <p>Paper type: <i>Research Paper</i></p> <p>*Corresponding author: email: Mirrasriwahyuni91@gmail.com</p>	<p><i>MSME is a labor-intensive business, does not require special requirements such as education level, worker skills (skills), uses relatively little capital, and is one of the supporting factors for improving the Indonesian economy, it can also maintain and strengthen the national economy. The purpose of this study was to determine the effect of entrepreneurial characteristics, product quality and technological sophistication on the sustainability of micro, small and medium enterprises (MSMEs). The research method used is a quantitative method. The sample in this study amounted to 54 respondents. The sampling technique used purposive sampling technique, the multiple linear analysis technique was processed using the SPSS.18 analysis tool. The results showed that Entrepreneurial Characteristics had a positive effect on the Continuity of Micro, Small and Medium Enterprises with a significance value of 0.009 (significance level <0.05), Product Quality had a positive effect on the Continuity of Micro, Small and Medium Enterprises with a regression value of 0.000, the t-value of 3.825. and a significance value of 0.000 (significance level < 0.05), Technological sophistication affects the sustainability of Micro, Small and Medium Enterprises with a regression value of 0.029, a t value of 2.252 and a significance value of 0.029 (significance level < 0.05), Entrepreneurial Characteristics, Product Quality and Technological Sophistication affect the Continuity of Micro, Small and Medium Enterprises by the significance value of 0.000 is smaller than 0.05 and the contribution is 61.2</i></p>

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INTRODUCTION

Micro enterprises are businesses operated by poor or near-poor communities, characterized by family ownership, the use of simple technology, reliance on local resources, and business activities that are easy to enter and exit. Most small enterprises produce consumer goods and services with low income elasticity of demand; therefore, changes in the average income level of society have relatively little impact on the demand for the goods produced. Conversely, increases in income levels also do not significantly affect demand. Meanwhile, medium-sized enterprises are defined as independent productive economic activities carried out by individuals or business entities (Indarto & Santoso, 2020). Entrepreneurial characteristics, as internal factors, play a crucial role in determining business success. These characteristics include having high motivation, a strong desire to innovate, a willingness to assume responsibility, achievement orientation, and the courage to take risks (Ezzel, 2019). Indarto & Santoso, (2020) conclude that entrepreneurial characteristics are a highly decisive factor in the success of Micro, Small, and Medium Enterprises (MSMEs).

Product quality is closely related to purchasing decisions, as consumers are likely to switch to alternative products if the selected product fails to meet established standards or expected quality levels. Numerous firms produce similar products with varying levels of quality, which encourages consumers to be more selective in their purchasing decisions due to intense market competition. To stimulate consumer purchasing power, products must be supported by high quality and effective promotion, as these factors significantly influence consumers' buying decisions. One of the strategies that MSMEs should adopt to attract consumer interest is to offer a wider variety of apparel products and to continuously improve product quality, thereby increasing consumer purchase intention toward MSMEs.

According to Mukoffi & As'adi, (2021) technological sophistication refers to the use of modern technologies that have developed in recent years to facilitate MSME owners in various aspects of business operations, including production processes, managerial activities, and access to relevant market information. Alannita & Suaryana, (2014) argue that technological sophistication has experienced rapid growth, particularly due to its ability to create various technological systems designed to assist human work processes and enhance quality. Many technologies simplify implementation for users. Industries that have adopted up-to-date, computerized, and integrated data technologies supported by modern applications are expected to generate positive impacts on organizational performance sustainability. Technological sophistication can also transform the behavior and practices of business actors. This study is important given that MSMEs in Indonesia continue to face several challenges, including insufficient attention to product quality, limited utilization of advanced technology, and underdeveloped entrepreneurial characteristics.

According to Tambunan (2002), in Indonesia, micro, small, and medium enterprises generally rely on outdated or traditional technologies in the form of old machinery and manual production tools. This technological backwardness results in low total factor productivity and inefficiency in production processes. Inadequate technology leads to low production capacity and limited output. Business actors continue to use manual technology because the scale of production is relatively small or because the products can only be manufactured using manual machinery, particularly in household-based enterprises that still depend on manual production methods. Primiana (2009) identifies several technological challenges, including a lack of training for new technologies, high maintenance costs, and expensive acquisition prices. These technological constraints are commonly experienced by business actors in operating their enterprises, especially in relation to technological aspects.

Although the quantitative growth of micro, small, and medium enterprises has increased significantly, this growth has not been accompanied by improvements in quality across various dimensions. One of the most persistent challenges faced by MSMEs is low productivity. This low productivity is reflected in the poor quality of human resources, particularly limited capabilities in management, organization, and marketing activities. In addition, inadequate technological utilization and weak entrepreneurial motivation among business actors further exacerbate productivity issues. Moreover, MSMEs generally face constraints in accessing capital, information, technology, markets, and other production factors. They also encounter external challenges, such as high transaction costs resulting from an unsupportive business climate and shortages of essential inputs, including electricity, fuel, and transportation (M. Azrul, 2016).

Based on the researcher's observations of several MSMEs in the snack food and beverage sectors, many MSMEs in Bengkulu struggle to sustain their operations and have not effectively utilized technology to promote their products or to explore innovative ideas and strategies for business sustainability and growth. In light of these conditions, this study seeks to examine the influence of entrepreneurial characteristics, product quality, and technological sophistication on the sustainability of micro, small, and medium enterprises (MSMEs).

LITERATUR REVIEW

In this study, entrepreneurial characteristics are treated as an independent variable. Entrepreneurial characteristics are defined as attributes related to an individual's distinctive traits, behaviors, temperament, attitudes, and actions in transforming innovative ideas into business activities, as well as the daily attitudes and actions of entrepreneurs in managing their ventures (Rahel Titin & Sartono, 2019). According to Jumaedi (2001), entrepreneurial characteristics are crucial because entrepreneurs possess behavioral attributes that enable them to create innovative breakthroughs to maintain the stability of MSME performance. Furthermore, entrepreneurs who demonstrate a strong drive for progress and possess creative and innovative mindsets are essential for all business actors (Tanubrata & Gunawan, 2019). Suryana (2014, p. 24) emphasizes that entrepreneurial characteristics are closely associated with achievement motivation. Entrepreneurs operate under the principle that their actions represent

optimal efforts aimed at generating maximum value. This implies that entrepreneurial activities are carried out deliberately and strategically, even when similar actions could be undertaken by others. Entrepreneurs with strong characteristics are more capable of managing their businesses effectively, thereby enabling business growth and sustainability. Therefore, entrepreneurs must possess well-developed entrepreneurial characteristics to ensure their enterprises can grow and perform successfully.

Product quality reflects the extent to which a product is capable of performing its intended functions. It can be assessed through dimensions such as reliability, durability, accuracy, ease of operation, and other value-added attributes. Consumers tend to prefer products that offer superior quality, performance, and innovative features. This is consistent with prior studies by Hendrawati, & Triastity (2017); Hidayat, & Sunarti (2017) which demonstrate that product quality has a significant and positive effect on consumer satisfaction. Higher levels of consumer satisfaction, in turn, contribute to business sustainability. According to Tjiptono (2008), product quality refers to efforts to meet or exceed customer expectations and encompasses products, services, human resources, processes, and environmental factors. Product quality is also a dynamic condition, as what is considered high quality at one point in time may be perceived as inadequate in the future.

Alannita and Suaryana (2014) state that technological sophistication has experienced rapid growth in recent years, particularly due to its ability to generate various technological systems designed to assist human work processes and enhance quality. Many technologies facilitate ease of implementation for users. Industries that extensively adopt up-to-date, computerized, and integrated data technologies supported by modern technological applications are expected to generate positive impacts on the sustainability of industrial performance. Technological sophistication can also alter the behavior and working habits of business actors.

According to Mukoffi and As'adi (2021), technological sophistication refers to the utilization of modern technologies that have recently developed to facilitate MSME owners in carrying out their business activities, including production processes, managerial functions, and access to relevant market information. In this study, the questionnaire items for the technological sophistication variable include indicators of technology diversity and technology evaluation, as adapted from Puspitasari (2018).

RESEARCH METHOD

The analytical method employed in this study is multiple regression analysis. Data were collected using a questionnaire based on a Likert scale. The data analysis was conducted using the Statistical Package for Social Sciences (SPSS) for Windows, version 18, to examine the significance levels of each regression coefficient of the independent variables on the dependent variable. The sample consisted of 54 Micro, Small, and Medium Enterprises (MSMEs) located in Bengkulu. This study applied classical assumption tests to detect potential deviations in the data used for analysis (Sugiyono, 2021).

To minimize possible violations of the regression assumptions, several classical assumption tests were conducted, including tests of data normality and hypothesis testing procedures. The normality test was performed to determine whether the dependent and independent variables in the regression model were normally distributed, as a well-

specified regression model requires data to be normally or approximately normally distributed (Ghozali, 2021). The normality of the data was examined using the Kolmogorov–Smirnov test.

Furthermore, hypothesis testing was conducted using the partial t-test, the simultaneous F-test, and the coefficient of determination (R^2) to assess the explanatory power of the model (Budiastuti & Bandus, 2018).

RESULTS AND DISCUSSION

Classical Assumption Test

Normality Test

In this study, the normality test was conducted using the Kolmogorov–Smirnov test by examining the Asymp. Sig. (2-tailed) value with a significance level of 0.05. If the Asymp. Sig. (2-tailed) value is greater than 0.05, the data are considered to be normally distributed. Conversely, if the Asymp. Sig. (2-tailed) value is less than 0.05, the data are not normally distributed. The results of the normality test are summarized in Table 1 :

Table 1
Result Normality Test
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		38
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.07676110
Most Extreme Differences	Absolute	.140
	Positive	.071
	Negative	-.140
Kolmogorov-Smirnov Z		.865
Asymp. Sig. (2-tailed)		.442

a. Test distribution is Normal.

b. Calculated from data.

Source: Processed primary data, 2025

Based on the results of the one-sample Kolmogorov–Smirnov (K–S) test, all variables exhibit an Asymp. Sig. (2-tailed) value greater than $\alpha = 0.05$, with a value of 0.442. These findings indicate that all variables are normally distributed, as the probability value exceeds 0.05, suggesting that the data meet the normality assumption.

Multiple Linear Regression Analysis

Multiple linear regression analysis examines the dependence of a dependent variable on more than one independent variable, with the objective of estimating or predicting the population mean or the value of the dependent variable based on known values of the independent variables. This analysis is used to determine the direction of the relationship between independent variables and the dependent variable, whether positive or negative. In this study, multiple linear regression analysis was performed

using SPSS software. The multiple regression equation model tested in the hypothesis analysis is expressed as follows:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Tabel 2
Result Multiple Linear Regression Test
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-8.005	2.788		-2.871	.007
X1	.557	.121	.409	4.601	.000
X2	.336	.083	.484	4.041	.000
X3	.271	.134	.232	2.020	.051

a. Dependent Variable: Y

Source: Processed primary data, 2025

$$\text{Model : } Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

$$= -8,005 + 0,557 + 0,336 + 0,271 + \varepsilon$$

Based on the multiple linear regression equation, the results can be interpreted as follows.

The results of the multiple regression analysis indicate that the constant value of -8.005 implies that if the variables of Entrepreneurial Characteristics, Product Quality, and Technological Sophistication are held constant (i.e., equal to zero), the sustainability of Micro, Small, and Medium Enterprises (MSMEs) will decrease by 8.005 units. The negative constant indicates a negative baseline effect, suggesting that in the absence of improvements in the independent variables, MSME sustainability tends to decline.

The regression coefficient for Entrepreneurial Characteristics is 0.557, indicating that a one-unit increase in Entrepreneurial Characteristics, while holding other variables constant, leads to an increase of 0.557 units in MSME sustainability. This positive coefficient demonstrates a positive relationship between Entrepreneurial Characteristics and the sustainability of MSMEs.

The regression coefficient for Product Quality is 0.336, meaning that a one-unit increase in Product Quality, with other variables held constant, results in an increase of 0.336 units in MSME sustainability. The positive coefficient indicates a positive relationship between Product Quality and MSME sustainability.

Similarly, the regression coefficient for Technological Sophistication is 0.271, indicating that a one-unit increase in Technological Sophistication, while other variables remain constant, increases MSME sustainability by 0.271 units. This positive coefficient suggests a positive relationship between Technological Sophistication and MSME sustainability.

Hypothesis Testing

This study aims to examine the effect of the independent variables—Entrepreneurial Characteristics, Product Quality, and Technological Sophistication—on the sustainability of Micro, Small, and Medium Enterprises (MSMEs). The hypotheses

were tested using multiple linear regression analysis with the assistance of IBM SPSS Statistics version 18. The study proposes three hypotheses tested within a single regression model.

Partial Test (t-test)

In this test, the calculated t-value is compared with the critical t-value, or alternatively, the significance probability is compared with the significance level ($\alpha = 0.05$). If the calculated t-value exceeds the critical value or if the significance value is less than 0.05, the independent variable is considered to have a significant effect on the dependent variable. The results of the partial t-tests are presented in Table 3.

Table 3
Result Partial Test (t-test)
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8.005	2.788		-2.871	.007
	X1	.557	.121	.409	4.601	.000
	X2	.336	.083	.484	4.041	.000
	X3	.271	.134	.232	2.020	.051

a. Dependent Variable: Y

Source: Processed primary data, 2025

Hypothesis 1

The first hypothesis of this study proposes that Entrepreneurial Characteristics have a positive effect on the sustainability of Micro, Small, and Medium Enterprises (MSMEs). The t-test was applied to test this hypothesis using a significance level of 5%.

Based on the results presented in Table 4.12, the regression coefficient for Entrepreneurial Characteristics shows a t-value of 4.601 with a significance level of 0.000, which is lower than 0.05. These results indicate that Entrepreneurial Characteristics have a significant effect on MSME sustainability. Therefore, Hypothesis 1 is **accepted**.

Hypothesis 2 Testing

The second hypothesis of this study proposes that Product Quality has a positive effect on the sustainability of Micro, Small, and Medium Enterprises (MSMEs). The t-test was employed across the regression model to examine this hypothesis using a significance level of 5%.

Based on the results presented in Table 4.12, the regression coefficient for Product Quality yields a t-value of 4.041 with a significance level of 0.000, which is lower than 0.05. These results indicate that Product Quality has a significant positive effect on MSME sustainability. Therefore, Hypothesis 2 is accepted.

Hypothesis 3 Testing

The third hypothesis of this study posits that Technological Sophistication has a positive effect on the sustainability of Micro, Small, and Medium Enterprises (MSMEs). The t-test was also applied to test this hypothesis using a significance level of 5%.

Based on the results shown in Table 4.12, the regression coefficient for Technological Sophistication produces a t-value of 2.020 with a significance level of 0.051, which exceeds the 0.05 threshold. These findings indicate that Technological Sophistication does not have a statistically significant effect on MSME sustainability at the 5% significance level. Therefore, Hypothesis 3 is rejected.

Simultaneous Test (F-test)

The F-test is used to determine whether the regression model is statistically feasible (fit). Decision-making in this test is based on the significance value (p-value). If the p-value is greater than 0.05, the regression model is considered not feasible (hypothesis rejected). Conversely, if the p-value is less than 0.05, the regression model is deemed feasible (hypothesis accepted). The results of the F-test are presented in Table 4

Table 4
Result F- Test
ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	136.996	3	45.665	36.193	.000 ^a
	Residual	42.898	34	1.262		
	Total	179.895	37			

a. Predictors: (Constant), X3, X1, X2

b. Dependent Variable: Y

Source: Processed primary data, 2025

Based on Table 4.11, the results of the F-test show that the regression model yields an F-statistic value of 36.193 with a significance level of 0.000, which is less than 0.05. This indicates that Entrepreneurial Characteristics, Product Quality, and Technological Sophistication simultaneously have a significant effect on the sustainability of MSMEs. Therefore, the regression model is considered statistically fit.

Coefficient of Determination (R²)

The coefficient of determination (R²) is used to measure the extent to which the regression model explains the variation in the dependent variable (Ghozali, 2013). The value of R² ranges between zero and one. A lower R² value indicates that the independent variables have limited ability to explain variations in the dependent variable. Conversely, an R² value approaching one suggests that the independent variables provide nearly all the information required to predict variations in the dependent variable. The results of the coefficient of determination (R²) test are presented in Table 5.

Table 5
Result Coefficient of Determination Test
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1 dimension	.873 ^a	.762	.740	1.12326

a. Predictors: (Constant), X3, X1, X2

b. Dependent Variable: Y

Source: *Processed primary data, 2025*

Based on Table 5, the results of the multiple coefficient of determination analysis indicate that the percentage of influence of the independent variables on the dependent variable is reflected by an Adjusted R Square value of 0.740. This implies that the coefficient of multiple determination is $0.740 \times 100\% = 74.0\%$, while the remaining variance is $100\% - 74.0\% = 26.0\%$. These findings suggest that variations in the dependent variable, namely the sustainability of Micro, Small, and Medium Enterprises (MSMEs), are explained by the independent variables—Entrepreneurial Characteristics, Product Quality, and Technological Sophistication—by 74.0%. The remaining 26.0% is influenced by other variables not examined in this study.

The Effect of Entrepreneurial Characteristics on MSME Sustainability

Based on the t-test results, the entrepreneurial characteristics variable yields a t-value of 4.601 with a significance level of 0.000. These findings indicate that entrepreneurial characteristics have a positive and statistically significant effect on the sustainability of Micro, Small, and Medium Enterprises (MSMEs), as the significance value is below 0.05. Entrepreneurial characteristics in this context refer to the behaviors, attitudes, distinctive traits, and actions of individuals in establishing and developing innovative business ventures to ensure sustainable growth.

The results demonstrate that MSME actors in Gading Cempaka District, Bengkulu City, possess distinct entrepreneurial characteristics that influence the sustainability of their respective businesses. Entrepreneurial orientation and readiness to become entrepreneurs—both of which are integral components of entrepreneurial characteristics—play a crucial role in achieving business success, as proposed by Lumpkin and Dess (2001). Entrepreneurs with strong entrepreneurial orientation and preparedness are more likely to achieve business success due to their confidence in attaining targeted goals and objectives.

Individual characteristics, as one element of entrepreneurial traits, significantly influence business success. These characteristics are closely related to individual competencies, including technical skills, which contribute positively to enterprise performance. This finding is consistent with Hamdani (2013), who argues that entrepreneurial development begins with the cultivation of ideal entrepreneurial characteristics, including preparation, positive attitudes, entrepreneurial knowledge, and technical expertise in managing resources to generate outputs. Charney and Libecap (2000) also conclude that entrepreneurs with adequate technical skills and competencies are more likely to succeed in running their businesses. Furthermore, this study aligns with previous research by Kusmintarti (2016), Sumantri et al. (2013), and Vijaya and

Irwansyah (2018), which confirms that MSME performance is significantly influenced by entrepreneurial characteristics.

The Effect of Product Quality on MSME Sustainability

The t-test results indicate that the product quality variable has a t-value of 4.041 with a significance level of 0.000. This suggests that product quality has a positive and statistically significant effect on the sustainability of MSMEs, as the significance value is below 0.05. These findings demonstrate that, partially, product quality significantly influences consumer purchasing decisions.

Product quality represents the extent to which a product effectively performs its intended functions and can be assessed through dimensions such as reliability, durability, accuracy, ease of operation, and other value-added attributes. Consumers tend to favor products that offer superior quality, performance, and innovative features. According to Ritzman (2010), product quality can be evaluated based on conformity to specifications, value, fitness for use, support, and psychological impression. Therefore, MSMEs must continuously create more attractive and higher-quality products to enhance consumer purchasing decisions.

These results are consistent with previous studies conducted by Hendrawati, Rahadhini, and Triastity (2017) as well as Saputra, Hidayat, and Sunarti (2017), which conclude that product quality has a significant and positive effect on customer satisfaction. Increased customer satisfaction ultimately contributes to improved business sustainability.

The Effect of Technological Sophistication on MSME Sustainability

The t-test results reveal that the technological sophistication variable has a t-value of 2.020 with a significance level of 0.051. This indicates that technological sophistication does not have a positive and statistically significant effect on MSME sustainability, as the significance value exceeds 0.05.

In this study, technological sophistication refers to the overall use of technology in production processes, including methods, machinery, and equipment, which are expected to improve product quality. Technology is also expected to facilitate the transformation of raw materials into finished goods through the application of scientific knowledge and the use of machinery to support production activities.

The findings of this study differ from some prior research. Technological sophistication—comprising technological, informational, functional, and managerial sophistication (Al-Eqab & Adel, 2013)—was found not to significantly affect MSME sustainability. The findings suggest that many MSME owners remain technologically illiterate and experience difficulties in utilizing technology for information management, functional operations, and managerial purposes. Consequently, MSME owners in Pasuruan Regency, who served as respondents in this study, have not fully perceived the benefits of technological sophistication. Additionally, the adoption of advanced technology often requires substantial financial investment, which discourages business owners from considering technological sophistication as a means to enhance business performance (Akhmad, 2015).

However, these findings contrast with studies by Ratnasih et al. (2017), Alannita and Suaryana (2014), Hamta and Putri (2019), and research on the impact of COVID-19 on MSMEs (2020), which report that technological sophistication may not significantly influence performance at the group level but can affect individual performance.

The Simultaneous Effect of Entrepreneurial Characteristics, Product Quality, and Technological Sophistication on MSME Sustainability

The results of the F-test indicate an F-statistic value of 36.193 with a significance level of 0.000, which is below the threshold of 0.05. This confirms that entrepreneurial characteristics (X1), product quality (X2), and technological sophistication (X3) simultaneously have a significant effect on the sustainability of Micro, Small, and Medium Enterprises (Y).

CONCLUSION

1. Entrepreneurial characteristics have a positive and statistically significant effect on MSME sustainability, with a significance value of 0.000 ($p < 0.05$).
2. Product quality has a positive and statistically significant effect on MSME sustainability, indicated by a t-value of 4.041 and a significance value of 0.000 ($p < 0.05$).
3. Technological sophistication does not have a significant effect on MSME sustainability, as reflected by a t-value of 2.020 and a significance value of 0.051 ($p > 0.05$).
4. Entrepreneurial characteristics, product quality, and technological sophistication simultaneously influence MSME sustainability, with a significance value of 0.000 ($p < 0.05$) and a contribution of 74.0%.

REFERENCES

- Abdullah, H. A. (2013). Pengaruh Budaya Organisasi, Komitmen Organisasi Dan Akuntabilitas Publik Terhadap Kinerja Organisasi Pada Kantor Wilayah Direktorat Jenderal Perbendaharaan Bengkulu. *Journal of Chemical Information and Modeling*.
- Aditya, A. . N. Y. K., & Widhiyani, N. L. S. (2018). Pengaruh Kecanggihan Teknologi Pada Efektivitas Sia Dengan Dukungan Manajemen Puncak, Dan Kemampuan Teknik Personal Sebagai Pemoderasi. *E-Jurnal Akuntansi*, 23(1), 705–733.
- Agung, Ferdinand. 2016. Analisis Implementasi Proses Knowledge Management pada Kantor Akuntan Publik Non Big-Four (Penelitian Exploratory pada KAPADR). Tesis. Yogyakarta. Magister Manajemen Universitas Gadjah Mada.
- Alannita, N. P., & Suaryana, I. G. N. A. (2014). Pengaruh Kecanggihan Teknologi Informasi, Partisipasi Manajemen, dan Kemampuan Teknik Pemakai Sistem Informasi Akuntansi Pada Kinerja Individu. *E-Jurnal Akuntansi Universitas Udayana*, 2(4), 801–810.
- A. Muri Yusuf. 2007. Metodologi Penelitian. Padang : UNP Press.
- Arif Sumantri, 2013 Metode Penelitian Kesehatan. Jakarta : Kencana Prenada Group.
- Arikunto, S. (2010). *Prosedur Penelitian: Suatu Pendekatan Praktik*. Rineka Cipta.
- Augusty, F. (2020). *Metode Penelitian Manajemen: Pedoman Penelitian untuk Penulisan Skripsi, Tesis, dan Disertasi Ilmu Manajemen* (5th ed.). Universitas Diponegoro Press.
- Aunur Rofiq. (2016). Penilaian Kinerja Keuangan Koperasi Pada Dinas Koperasi Dan UMKM Pamekasan Dengan K-Means. *Jurnal Simantec*, 5(2), 67–74.
- Birdthistle, Naomi. 2008. An examination of tertiary students' desire to found an enterprise. *Journal of Education and Training*. 50 (7): 552- 567.
- Budiastuti, D., & Bandus, A. (2018). *Validitas dan Reliabilitas dalam Penelitian* (1

(ed.). Andi.

- Chen et al., (2010). Are Family Firms More Tax Aggressive Than Non-Family Firms? *Journal of Financial Economics*, 41-61.
- Devitasari, N. (2017). Pengaruh Kualitas Pelayanan, Persepsi Harga, dan Produk Terhadap Kepuasan Pelanggan pada Indomaret di Desa Wringinanom Kab. Gresik. *Universitas 17 Agustus 1945 Surabaya*, 91–115.
- Essel, B. K. C., Adams, F., & Amankwah, K. (2019). Effect of entrepreneur, firm, and institutional characteristics on small-scale firm performance in Ghana. *Journal of Global Entrepreneurship Research*, 9(1). <https://doi.org/10.1186/s40497-019-0178-y>.
- Fanuel Valian Ekananta. (2016). Pengaruh Karakteristik Kewirausahaan Dan Motivasi Terhadap Keberhasilan Usaha Pada Wirausaha Di Kecamatan SEMARANG UTARA. 41–56.
- Ghozali, Imam. (2021). *Aplikasi Analisis Multivariate dengan Program IBM SPSS* (10th ed.). Badan Penerbit Universitas Diponegoro.
- Ghozali, Imam. 2011. “Aplikasi Analisis Multivariate Dengan Program SPSS”. Semarang: Badan Penerbit Universitas Diponegoro.
- Ghozali, Imam. 2001. *Aplikasi Analisis Multivariate Dengan Program SPSS*. Edisi Kedua, Semarang: Badan Penerbit Universitas Diponegoro.
- Ghozali, Imam. 2016. *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 23* (Edisi 8). Cetakan ke VIII. Semarang : Badan Penerbit Universitas Diponegoro.
- Ghozali, Imam. 2013. *Aplikasi Analisis Multivariate dengan Program IBM SPSS 21 Update PLS Regresi*. Semarang: Badan Penerbit Universitas Diponegoro.
- Ghozali, I. 2013. *Aplikasi Analisis Multivariate dengan Program SPSS*. Badan Penerbit Universitas Diponegoro. Semarang.
- Handini, Sri dkk. 2019. *Pemberdayaan Masyarakat Desa Dalam Pengembangan UMKM Di Wilayah Pesisir*. Surabaya: Scopindo Media Pustaka.
- Handayani, 2007. (2017). Pengaruh Financial Literacy Terhadap Keberlangsungan Usaha (Business Sustainability) Pada Umkm Desa Jatisari. *Jurnal Ilmiah Manajemen & Bisnis*, 18(2), 153. <https://doi.org/10.30596/jimb.v18i2.1399>
- Hasanah, H. (2017). TEKNIK-TEKNIK OBSERVASI (Sebuah Alternatif Metode Pengumpulan Data Kualitatif Ilmu-ilmu Sosial). *At-Taquaddum*, 8(1), 21. <https://doi.org/10.21580/at.v8i1.1163>
- Hendrawati, D., Rehadhini, Desma, M., & Triastity, R. (2017). Analisis pengaruh kualitas produk dan pelayanan terhadap kepuasan konsumen dengan harga sebagai variabel moderasi. *Jurnal Ekonomi Dan Kewirausahaan*, 17(3), 621–628.

- Husna Kharisma, N., & Novita. (2021). Income and Net Profit of Culinary MSMEs in Bandar Lampung Before and After Using Fintech Payments. *Jurnal Manajemen Dan Bisnis (Performa)*, 18(1), 14–18.
- Helmawati. 2017. Pendidikan Karakter sehari-hari. Bandung : PT. RemajaRosdakarya.
- Indarto, I., & Santoso, D. (2020). Karakteristik Wirausaha, Karakteristik Usaha Dan Lingkungan Usaha Penentu Kesuksesan Usaha Mikro Kecil Dan Menengah. *Jurnal Riset Ekonomi Dan Bisnis*, 13(1), 54. <https://doi.org/10.26623/jreb.v13i1.2202>
- Mukoffi, A., & As'adi, A. (2021). Karakteristik wirausaha, modal usaha dan kecanggihan teknologi terhadap kinerja UMKM di masa pandemi Covid-19. *Jurnal Paradigma Ekonomika*, 16(2), 235–246. <https://doi.org/10.22437/jpe.v16i2.12552>
- Saputra, S. T., Kadarisman, H., & Sunarti. (2017). pengaruh kualitas produk terhadap keputusan pembelian dan dampaknya terhadap kepuasan konsumen pengguna Iphone. *Jurnal Administrasi Bisnis*, Vol. 50(6), 85–95.
- Sugiyono. (2021). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (27th ed.). Alfabeta.
- Tjiptono, Fandy. "Strategi pemasaran edisi iii." Yogyakarta: Andi (2008)..