

**THE INFLUENCE OF FINANCIAL INCLUSION, INNOVATION, FINTECH,
PERCEIVED BENEFIT, AND PERCEIVED RISK ON THE FINANCIAL
PERFORMANCE OF MSMEs IN MEDAN CITY**

**PENGARUH FINANCIAL INCLUSION, INNOVATION, FINTECH,
PERCEIVED BENEFIT DAN PERCEIVED RISK TERHADAP KINERJA
KEUANGAN UMKM DI KOTA MEDAN**

**Alvin Tanady¹, Yeni Ariesa², Rischa³, Fenny Waty⁴,
Fandi Fong⁵, Agung Sahbana⁶**

Program Studi Manajemen, Fakultas Ekonomi Universitas Prima Indonesia^{1,2,3,4,5}
Sekolah Tinggi Ilmu Ekonomi Pangeran Antasari⁶

Email : yeniariesa@unprimdn@gmail.com

ABSTRACT

The purpose of this study is to examine the impact of Financial Inclusion, Innovation, Fintech, Perceived Benefit, and Perceived Risk on the Financial Performance of UMKM in Medan City. The research method used is associative research (relationship analysis). The population in this study consists of UMKM owners in Medan City. The sampling technique applied is Accidental Sampling, with a total of 100 respondents, excluding 30 respondents used for validity testing. The data analysis method employed is multiple linear regression. The results of the F-test show that the F-calculated value (18.617) is greater than the F-table value (2.31) with a significance level of < 0.05 , indicating that Financial Inclusion, Innovation, Fintech, Perceived Benefit, and Perceived Risk simultaneously have a significant influence on the Financial Performance of UMKM in Medan City. The t-test results reveal that Financial Inclusion has a positive and significant effect, Innovation has a negative and significant effect, Fintech has a positive and significant effect, Perceived Benefit has a positive and significant effect, and Perceived Risk has no effect on the Financial Performance of UMKM in Medan City. The coefficient of determination analysis shows an Adjusted R^2 value of 0.471, indicating that 47.1% of the variation in Financial Performance is explained by Financial Inclusion, Innovation, Fintech, Perceived Benefit, and Perceived Risk variables, while the remaining 52.9% is explained by other variables.

Keywords: *Financial Inclusion, Innovation, Fintech, Perceived Benefit, Perceived Risk, Financial Performance*

INTRODUCTION

UMKM are specialized units that contribute significantly to the economy and are capable of operating independently, managed by individuals or business entities across various financial sectors. Enhancing UMKM can help address unemployment issues, given their substantial numbers in the country. This improvement opens up more opportunities for employment and entrepreneurship, thereby supporting regional economic development.

Business performance refers to formal efforts undertaken by companies to effectively and efficiently evaluate their activities within a specific time frame, particularly in financial aspects. Financial performance represents the company's financial condition, analyzed using financial analysis tools to assess the financial health and achievements of the company during a given period.

Several factors influence the financial performance of businesses, including Financial Inclusion. Financial Inclusion refers to the condition in which every individual has access to quality formal financial services that are timely, seamless, safe, and affordable, tailored to their needs and abilities, aimed at improving overall welfare. Effective financial inclusion positively impacts UMKM financial performance, as it allows UMKM greater access and flexibility to conduct transactions for their operations. Innovation also significantly influences a company's financial performance. Innovation is one of the most critical competitive factors for achieving success in today's rapidly changing business environment. Financial innovation, in particular, involves creating new financial instruments, technologies, institutions, and markets to enhance performance, which is essential for UMKM.

The term FinTech refers to technology-based financial services that facilitate transactions anytime and anywhere (Otoritas Jasa Keuangan, 2019). One FinTech product that can serve as a financing solution for UMKM is Peer-to-Peer Lending (P2P Lending). P2P Lending is a financial service that connects lenders and borrowers online (Otoritas Jasa Keuangan, 2019). UMKM often require FinTech as a source of funding for their operations. Such funding can be used by UMKM to grow their businesses, including increasing production, expanding business locations, and developing new products.

In addition, Perceived Benefit can also influence financial performance. Factors such as timeliness, perceived utility, and relatively lower costs are essential elements for customers to derive benefits from a product. Rational customer behavior aims to maximize benefits and minimize costs. If the costs outweigh the benefits, customers will abandon the transaction; conversely, if the benefits exceed the costs, rational customers are

expected to continue. UMKM are therefore required to optimize their products to deliver maximum perceived customer benefits to their consumers.

Based on the background above, the author is interested in conducting research titled ***"The Influence of Financial Inclusion, Innovation, Fintech, Perceived Benefit, and Perceived Risk on the Financial Performance of UMKM in Medan City."***

RESEARCH METHODS

This research employs an associative method to examine the relationship and influence between variables. The population comprises UMKM owners in Medan City, with a sample size of 100 respondents selected using purposive and accidental sampling methods, excluding 30 participants for validity testing. This quantitative research, grounded in positivism philosophy, uses random sampling and statistical analysis to test the hypotheses (Sugiyono, 2019). Data collection methods include questionnaires, interviews, and document studies, using both primary and secondary data. Instrument testing involves validity and reliability checks. Validity is assessed using the *r-value* against the *r-table*, with $\alpha = 0.05$ as the significance level (Ghozali, 2018). Reliability is evaluated using Cronbach's Alpha, with a score above 0.8 indicating high reliability (Priyatno, 2019).

The study applies multiple linear regression to predict changes in the dependent variable due to independent variables. Classical assumption tests include multicollinearity (tolerance ≤ 0.10 or VIF ≥ 10), heteroscedasticity (scatter plot and Glejser Test with significance > 0.05), and normality (histogram, normal probability plot, and Kolmogorov-Smirnov Test). Hypotheses are tested simultaneously using the F-test to determine collective influence, and partially using the t-test to evaluate individual variable impact. The coefficient of determination (R^2) measures the model's

explanatory power, with adjusted R^2 values near 1 indicating strong explanatory capability (Ghozali, 2018).

RESULTS AND DISCUSSIONS

Characteristics of Respondents

The analysis of respondent characteristics aims to describe the individual data profiles of each respondent, including aspects such as age, gender, educational level, and length of employment. This descriptive analysis provides an overview of the demographic and professional attributes relevant to the research context.

Table 1 Respondent Characteristics Based on Gender

Gender	Frekuensi	Persentase (%)
Male	67	67
Female	33	33
Total	100	100

Based on Table.1, it can be seen that the majority of respondents are male, with 67 individuals (67%), while female respondents number 33 (33%). This indicates that most of the respondents in this study are male.

Table 2 Respondent Characteristics Based on Age

Age	Frekuensi	Persentase (%)
20-30 year	38	38
31-40 year	44	44
41-50 year	16	16
> 50 yer	2	2
Total	100	100

Based on Table 2, the data shows that the largest group of respondents is aged 31–40 years, with 44 individuals (44%), while the smallest group is aged over 50 years, with 2 individuals (2%). These results indicate that the majority of respondents fall within the productive age group.

Table 3 Respondent Characteristics Based on Education

Education	Frekuensi	Persentase (%)
SMA	58	58
D3	11	11
S1	13	13

other	18	18
Total	100	100

Based on Table.3, it can be seen that the largest group of respondents has a high school education (SMA), with 58 individuals (58%). The smallest group of respondents has a bachelor's degree (S1), with 13 individuals (13%).

Validity and Reliability Test

Validity Test

Table 4 Results of the Validity Test

Q	Financial Inclusion (X1)		Innovation (X2)		Fintech (X3)		Perceived Benefit (X4)		Perceived Risk (X5)		Kinerja Keuangan (Y)	
	rhitung	Sig	rhitung	Sig	rhitung	Sig	rhitung	Sig	rhitung	Sig	rhitung	Sig
1	0.5173611	0.000	0.39705556	0.000	0.31388889	0.012	0.388889	0.001	0.2895833	0.022	0.5548611	0.000
2	0.5279167	0.000	0.52833333	0.000	0.46111111	0.000	0.5034722	0.000	0.3958333	0.000	0.5469722	0.000
3	0.4235228	0.000	0.51388889	0.000	0.35277778	0.000	0.4611111	0.000	0.4333333	0.000	0.5611111	0.000
4	0.4627778	0.000	0.37430556	0.000	0.34583333	0.005	0.4173611	0.000	0.5288889	0.000	0.5604167	0.000
5	0.2888556	0.040	0.51472222	0.000	0.37847222	0.000	0.33375	0.006	0.5875	0.000	0.3395833	0.006
6	0.5805833	0.000	0.41875	0.000	0.38263889	0.000	0.509722	0.000	0.5958333	0.000	0.4465278	0.000
7	0.580722	0.000			0.35625	0.000	0.052	0.000			0.3388889	0.006
8	0.5944444	0.000			0.5	0.000	0.5263889	0.000			0.4888889	0.000
9							0.4180556	0.000				
10							0.4027778	0.001				

Based on Table 4, the results of the questionnaire validity test for the variables of Financial Inclusion, Innovation, Fintech, Perceived Benefit, Perceived Risk, and Financial Performance show that the correlation values are greater than 0.361 and the significance values are less than 0.05. Therefore, it can be concluded that all the questions for the variables of Financial Inclusion, Innovation, Fintech, Perceived Benefit, Perceived Risk, and Financial Performance used in the study are valid.

Reliability Test

Table 5 Reliability Test

Pertanyaan	Cronbach's Alpha	N of Items	Hasil
Financial Inclusion (X1)	0,60625	8	Reliabel
Innovation (X2)	0,508333333	6	Reliabel
Fintech (X3)	0,463194444	8	Reliabel
Perceived Benefit (X4)	0,569444444	10	Reliabel
Perceived Risk (X5)	0,534027778	6	Reliabel
Kinerja Keuangan (Y)	0,563888889	8	Reliabel

Based on Table 5, the reliability test results show that the Cronbach's Alpha values for each instrument from the variables of Financial Inclusion, Innovation, Fintech, Perceived Benefit,

Perceived Risk, and Financial Performance are all greater than 0.60. This indicates that all variables are reliable and can be used for further research.

Descriptive Statistics Analysis
Table 6 Descriptive Statistics Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Financial_Inclusion	100	14.00	34.00.00	252.200	360.017
Innovation	100	07.00	19.00	135.600	263.358
Fintech	100	14.00	33.00.00	248.200	355.443
Perceived_Benefit	100	21.00	52.00.00	374.600	647.048
Perceived_Risk	100	07.00	27.00.00	185.500	367.733
Kinerja_Keuangan	100	13.00	36.00.00	272.000	458.808
Valid N (listwise)	100				

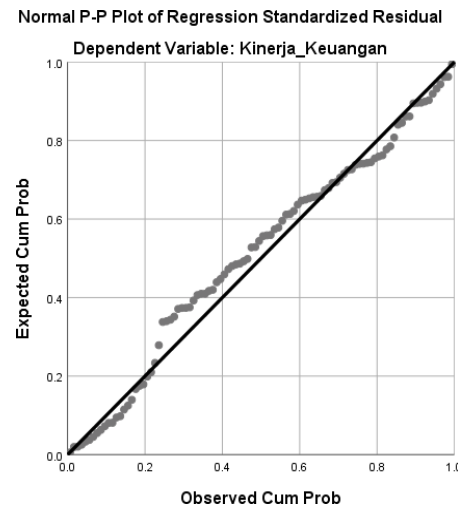
Source: Research Results, 2024

Based on Table 6, it can be observed that the sample size used in this study is 100 individuals who are part of the UMKM in Medan City. The **Financial Inclusion** variable has a minimum value of 14 and a maximum value of 34, with an average of 25.2200 and a standard deviation of 3.60017. The **Innovation** variable has a minimum value of 7 and a maximum value of 19, with an average of 13.5600 and a standard deviation of 2.63358. The **Fintech** variable has a minimum value of 14 and a maximum value of 33, with an average of 24.8200 and a standard deviation of 3.55443. The **Perceived Benefit** variable has a minimum value of 21 and a maximum value of 52, with an average of 37.4600 and a standard deviation of 6.47048. The **Perceived Risk** variable has a minimum value of 7 and a maximum value of 27, with an average of 18.5500 and a standard deviation of 3.67733. Finally, the **Financial Performance** variable has a minimum value of 13 and a maximum value of 36, with an average of 27.2000 and a standard deviation of 4.58808.

Classical Assumption Test

Normality Test

Figure III.1 Results of Normality Test with Histogram Chart



In **Figure 1**, the bell-shaped curve is visible, without significant skewness to the left or right. This indicates that the data follows a normal distribution and satisfies the normality assumption.

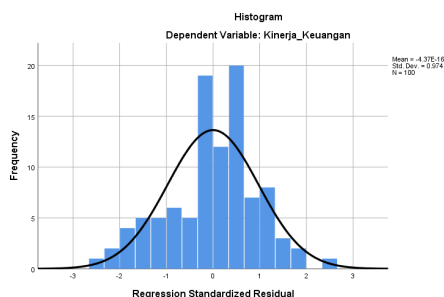
Figure III.2 Results of Normality Test with Probability Plot Me

In **Figure 2**, the data is dispersed around the diagonal line. This indicates that the data regressed in this study follows a normal distribution.

Table 7
Results of Normality Test: One-Sample Kolmogorov-Smirnov Test

N		100
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	325.216.755
Most Extreme Differences	Absolute	.094
	Positive	.052
	Negative	-.094
Test Statistic		.094
Asymp. Sig. (2-tailed)		.030 ^c
Monte Carlo Sig. (2-tailed)	Sig. 90% Confidence Interval	.325 ^d
		Lower Bound
		Upper Bound
		.317
		.333

Based on **Table 7**, the results show that the Kolmogorov-Smirnov test yields a



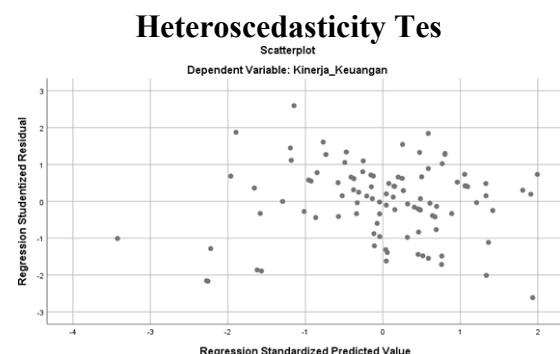
significance value of 0.325. Since the significance is greater than 5% (0.05), it can be concluded that the residuals are normally distributed.

Multicollinearity Test

Table 8 Results of Multicollinearity Test

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	1.558	3.829		.407	.685	
	Financial_Inclusion	.259	.113	.203	2.295	.024	.680
	Innovation	.333	.139	.191	2.392	.019	.836
	Fintech	.208	.101	.161	2.062	.042	.875
	Perceived_Benefit	.306	.062	.432	4.919	.000	.694
	Perceived_Risk	-.110	.099	-.088	-1.110	.270	.846

In Table 8, the VIF values for the variables are as follows: Financial Inclusion is 1.470, Innovation is 1.196, Fintech is 1.143, Perceived Benefit is 1.440, and Perceived Risk is 1.182, all of which are less than 10. The Tolerance values for the variables are as follows: Financial Inclusion is 0.680, Innovation is 0.836, Fintech is 0.875, Perceived Benefit is 0.694, and Perceived Risk is 0.846, all of which are greater than 0.10. This indicates that there is no multicollinearity problem.



Source: Research Results, 2024

Figure 3 Heteroscedasticity Test Results

In Figure III.3, the points are scattered without forming specific patterns and are distributed both above and below zero on the Regression Studentized Residual (y-axis). Based on this figure, there is no indication of heteroscedasticity, meaning the regression model is suitable for predicting employee performance based on the independent variables.

Tabel 9 Result Gletser Test

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	5.284	2.315		2.283	.025	
	Financial_Inclusion	-.021	.068	-.037	-.302	.763	.680
	Innovation	-.004	.084	-.005	-.045	.964	.836
	Fintech	-.070	.061	-.124	-1.153	.252	.875
	Perceived_Benefit	-.040	.038	-.130	-1.076	.285	.694
	Perceived_Risk	.059	.060	.107	.976	.332	.846

a. Dependent Variable: abs
Source: Research Results, 2024

From Table 9, it can be observed that the probability value (Sig.) for the variables Financial Inclusion, Innovation, Fintech, Perceived Benefit, Perceived Risk, and Financial Performance is above 0.05. This indicates that the significance values exceed the 5% confidence level (0.05), meaning the regression model does not exhibit heteroscedasticity.

Data Analysis Results

Multiple Linear Regression Analysis

Table 10 Results of Multiple Linear Regression Analysis

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	1.558	3.829		.407	.685	
	Financial_Inclusion	.259	.113	.203	2.295	.024	.680
	Innovation	.333	.139	.191	2.392	.019	.836
	Fintech	.208	.101	.161	2.062	.042	.875
	Perceived_Benefit	.306	.062	.432	4.919	.000	.694
	Perceived_Risk	-.110	.099	-.088	-1.110	.270	.846

a. Dependent Variable:
Financial_Performance
Source: Research Results, 2024

From Table 10, the multiple linear regression equation in this study is as follows:

$$\text{Financial Performance} = 1.558 + 0.259 \text{ Financial Inclusion} + 0.333 \text{ Innovation} + 0.208 \text{ Fintech} + 0.306 \text{ Perceived Benefit} - 0.110 \text{ Perceived Risk}$$

1. The constant value (a) is **1.558**, meaning that if the variables Financial Inclusion, Innovation, Fintech, Perceived Benefit, and Perceived Risk are all 0, the Financial Performance will be **1.558 units**.
2. The coefficient of the Financial Inclusion variable (X1) is **0.259**, indicating that for every increase of 1 unit in Financial Inclusion, the Financial Performance will increase by **0.259 units**, assuming other variables remain constant.
3. The coefficient of the Innovation variable (X2) is **0.333**, meaning that for every 1-unit increase in Innovation, the Financial Performance will increase by **0.333 units**, assuming other variables remain constant.
4. The coefficient of the Fintech variable (X3) is **0.208**, showing that for every 1-unit increase in Fintech, the Financial Performance will increase by **0.208 units**, assuming other variables remain constant.
5. The coefficient of the Perceived Benefit variable (X4) is **0.306**, meaning that for every 1-unit increase in Perceived Benefit, the Financial Performance will increase by **0.306 units**, assuming other variables remain constant.
6. The coefficient of the Perceived Risk variable (X5) is **-0.110**, indicating that for every 1-unit increase in Perceived Risk, the Financial Performance will decrease by **0.110 units**, assuming other variables remain constant.

Coefficient of Determination (R²)
Table 11 Coefficient of Determination (R²)

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.705 ^a	.498	.471	333.754

a. Predictors: (Constant), Perceived_Risk, Financial_Inclusion, Fintech, Innovation, Perceived_Benefit

b. Dependent Variable: Financial_Performance

Source: Research Results, 2024

Based on Table 11, the value obtained from the third column is **0.471**, which means that the variation in the variables Financial Inclusion, Innovation, Fintech, Perceived Benefit, and Perceived Risk can explain **47.1%** of the variation in Financial Performance. The remaining **52.9%** is explained by other factors, such as Motivation and Accounting Knowledge.

Hypothesis Testing: F-Test

Table 12 Results of the F-Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.036.917	5	207.383	18.617	.000 ^b
	Residual	1.047.083	94	11.139		
	Total	2.084.000	99			

a. Dependent Variable: Kinerja_Kuangan

b. Predictors: (Constant), Perceived_Risk, Financial_Inclusion, Fintech, Innovation, Perceived

Source: Research Results, 2024

In Table 12, the calculated F-value (**Fhitung**) is **18.617**, while the critical F-value (**Ftabel**) at $\alpha = 0.05$ is **2.31**. This indicates that the variables Financial Inclusion, Innovation, Fintech, Perceived Benefit, and Perceived Risk, taken together, have a significant effect on the Financial Performance variable of UMKM in Medan.

Hypothesis Testing: t-Test

Table 13 Results of the t-Test

Model	Unstandardized Coefficients		Standardized Coefficients		t		Sig.		Collinearity Statistics	
	B	Std. Error	Beta						Tolerance	VIF
(Constant)	1.558	3.829			.407	.685				
Financial Inclusion	.259	.113	.203		2.295	.024		.680	1.470	
Innovation	.333	.139	.191		2.392	.019		.836	1.196	
Fintech	.208	.101	.161		2.062	.042		.875	1.143	
Perceived Benefit	.306	.062	.432		4.919	.000		.694	1.440	
Perceived Risk	-.110	.099	-.088		-1.110	.270		.846	1.182	

a. Dependent Variable: Kinerja_Keuangan

Source: Research Results, 2024

In Table 13, the results of the partial tests (t-tests) are as follows:

1. **Financial Inclusion:** The calculated t-value is **2.295**, which is greater than the critical t-value of **1.98525**, and the significance value (Sig t) is **0.024**, which is less than α (**0.05**). This means that Financial Inclusion has a significant effect on the Financial Performance of UMKM in Medan. This indicates that financial inclusion facilitates UMKM in accessing financial services, enabling them to better manage the financial performance of their business.
2. **Innovation:** The calculated t-value is **2.392**, which is greater than the critical t-value of **1.98525**, and the significance value (Sig t) is **0.019**, which is less than α (**0.05**). This means that Innovation has a significant effect on the Financial Performance of UMKM in Medan. As innovation improves, the businesses of UMKM grow, leading to enhanced financial performance.
3. **Fintech:** The calculated t-value is **2.062**, which is greater than the critical t-value of **1.98525**, and the significance value (Sig t) is **0.042**, which is less than α (**0.05**). This means that Fintech has a significant effect on the Financial Performance of UMKM in Medan. The presence of fintech helps UMKM owners

better manage their business finances, resulting in a positive impact on their financial performance.

4. **Perceived Benefit:** The calculated t-value is **4.919**, which is greater than the critical t-value of **1.98525**, and the significance value (Sig t) is **0.000**, which is less than α (**0.05**). This means that Perceived Benefit has a significant effect on the Financial Performance of UMKM in Medan. The perceived benefits that UMKM feel from current financial services help them in running their business, thus improving their financial performance.
5. **Perceived Risk:** The calculated t-value is **-1.110**, which is greater than the critical t-value of **1.98525**, and the significance value (Sig t) is **0.270**, which is greater than α (**0.05**). This means that Perceived Risk does not significantly affect the Financial Performance of UMKM in Medan. Even though UMKM may perceive high risks, this does not affect their financial performance because they are prepared for potential losses.

CONCLUSION AND SUGGESTION

In this study, it was found that Financial Inclusion (X1), Innovation (X2), and Fintech (X3) have a positive and significant impact on the Financial Performance (Y) of UMKM in Medan, indicating that access to financial services, innovation, and the use of financial technology can improve the financial performance of UMKM. Additionally, Perceived Benefit (X4) also has a positive and significant impact on financial performance, meaning that the benefits perceived by UMKMs in using certain services or products contribute to enhancing their financial performance. However, Perceived Risk (X5) does not

have a significant impact on the financial performance of UMKM in Medan. Overall, variables such as Financial Inclusion, Innovation, Fintech, Perceived Benefit, and Perceived Risk collectively have a significant impact on the financial performance of UMKM in Medan.

REFERENCES

- Afriyani, Y., & Muhajirin. (2021). The effect of innovation and creativity on consumer satisfaction in SMEs in Dina, Ntobo Village. *Journal of Business Management*.
- Cucculelli, M., & Bettinelli, C. (2015). Business models, intangibles, and firm performance: Evidence on corporate entrepreneurship from Italian manufacturing SMEs. *Small Business Economics*, 45(2), 329–350.
- Ghozali, I. (2018). *Research methods*. Jakarta: Diponegoro University Press.
- Maharani, S., & Cipta, W. (2022). The effect of financial literacy and financial inclusion on micro-enterprise performance in Baktiseraga Village, Buleleng District. *Journal of Management Affairs, Ganesha University of Education, Singaraja*.
- Mutegi, N., Njeru, A., & Ongesa, S. (2020). Financial literacy and its impact on loan repayment by small and medium entrepreneurs. *International Journal of Economics, Commerce and Management*, 3(3), 1–28.
- Narahdita, A. P., Aisjah, S., & Kusniah, N. (2020). Trust and perceived benefit as antecedents of reuse intention in mobile payment services. *Journal of Applied Management (JAM)*, 18(4), 682–691.
- Ningsih, T. N., & Tasman, A. (2020). The effect of financial literacy and financial inclusion on MSME performance. *Journal of Management, Padang State University, Padang, Indonesia*.
- Nurdin, Z. (2018). Innovation in the smoke-free area in Bone-Bone Village, Baraka District, Enrekang Regency. Makassar: Hasanuddin University, Makassar.
- Rohmah, R. M. (2021). The effect of financial literacy and fintech on financial inclusion in Yogyakarta. *Undergraduate thesis, Yogyakarta University of Technology*.
- Salsabila, H. Z., Susanto, & Hutami, L. T. H. (2021). The effect of perceived risk, benefits, and ease of use on online purchasing decisions on the Shopee application. *Journal of Sarjanawiyata Tamansiswa University, Yogyakarta, Indonesia*.
- Sugiyono. (2016). *Quantitative, qualitative, and R&D research methods* (22nd edition). Bandung: Alfabeta.
- Sugiyono. (2019). *Research methods in administration, including R&D methods* (23rd edition). Bandung: Alfabeta.
- Sukma, E. A., Hadi, M., & Nikmah, F. (2019). The effect of Technology Acceptance Model (TAM) and trust on Instagram user intention. *Journal of Economic and Business Research*, 112–121.
- Winbaktianur, & Siregar, L. M. (2020). Financial performance of micro and small enterprises. *Journal of Muhammadiyah University of West Sumatra*.