

The Influence of E-Commerce and Financial Technology on Business Sustainability (Survey on Msmes Registered at Shopee Campus Bandung Indonesia)

Nurul Nofatikasari¹, Hastuti Hastuti²

^{1,2}(Politeknik Negeri Bandung, Indonesia)

ABSTRACT : This study investigates how e-commerce and financial technology can help MSMEs stay afloat, particularly after the pandemic. The researchers surveyed MSMEs registered with a specific ecommerce platform to see how these technologies affect business continuity. The population that is the focus of this study consists of 103 MSMEs registered at the Shopee Campus Bandung Indonesia, with a sample of 82 MSMEs selected using simple random sampling technique. This study uses a quantitative descriptive method with primary data obtained through distributing questionnaires to respondents. Hypothesis testing was carried out through multiple linear regression analysis to identify the relationship between the variables studied. The results of this study indicate that e-commerce and financial technology partially have a positive and significant effect on the sustainability of MSME businesses, as well as simultaneously e-commerce and financial technology have a positive and significant effect on the sustainability of MSME businesses.

KEYWORDS: Business Sustainability, E-Commerce, Financial Technology, MSMEs

I. INTRODUCTION

MSMEs in Indonesia are an important pillar of economic growth, contributing 61.1% of GDP and 97% of labor absorption. The growth is also significant, with the number of MSMEs in Bandung reaching 8.71 million units by 2022. Bandung is one of the cities that has experienced a large increase and development in the number of MSMEs. Quoted from the Bandung Portal website, by 2022 the growth of MSMEs in Bandung City will increase to 180,000 new businesses and transaction activity will increase by 150%. The increase and growth in the number of MSMEs in Bandung City is expected to make a positive contribution to increasing economic activity, with an impact on improving community welfare and reducing unemployment. The rapid development of the MSME sector encourages business actors to compete more intensively to maintain the sustainability of their business. This competition has the potential to affect the company's ability to achieve profits, so business actors are required to produce more diverse creative ideas to develop their businesses and products in order to compete effectively with other MSMEs in the same sector. However, in this digital era, MSMEs still face various challenges, such as limited market access, capital, and human resources, as well as intense business competition. This encourages the importance of adapting to technology, such as the use of e-commerce and financial technology. E-commerce opens opportunities for MSMEs to reach global consumers and increase competitiveness. Financial technology is equally important, helping MSMEs access capital, streamline transactions, and increase accessibility to financial services. The use of marketplaces such as Shopee is one effective way. Shopee as one of the leading marketplace platforms in Indonesia, has provided a platform for thousands of MSMEs to participate in the digital ecosystem. One of the concrete actions taken by Shopee is to

establish the Shopee MSME Campus. Shopee MSME Campus in Bandung is present as a forum for MSMEs to learn and improve skills in selling online, to increase their business sustainability. This study aims to determine the effect of e-commerce and financial technology on the sustainability of MSME businesses registered at the Shopee MSME Campus in Bandung. MSMEs that are adaptive and make good use of digital technology, such as e-commerce and financial technology, will be better prepared to face challenges and seize opportunities in the digital era. On the basis of the description above, the researcher decided to conduct entitled "**The Effect of E-Commerce and Financial Technology on Business Sustainability (Survey on MSMEs Registered at Shopee Campus Bandung Indonesia)**".

II. LITERATURE REVIEW

II.1 E-Commerce

According to Laudon and Laudon (1998) in Nursani (2019) E-commerce is a trading activity carried out online, where buyers and sellers are connected via the internet to conduct product buying and selling transactions. This transaction is facilitated by computers and internet networks.

II.2 Financial Technology

Based on The Digital Research Center (NDRC) in Muzdalifa, et al (2018) financial technology is defined as "innovation in financial service" which is an innovation using the latest technology in the financial sector. Financial Technology assists in various financial transactions such as payments, investments, transfers, money loans, asset management, and as a comparison tool for financial products. Financial Technology is categorized into 4 types, namely, market aggregator, payment clearing and settlement, crowdfunding and peer to peer to lending, and risk and investment management. This research focuses on digital payment, a type of financial technology that includes electronic payment services such as digital wallets.

II.3 Business Sustainability

Business continuity can be defined as business resilience in the long term. This is achieved through the company's consistency in various aspects, such as growth, development, survival strategies, and overall business development. The main objective of all these aspects is to ensure business continuity and existence (Verdú, 2015).

II.4 MSME (Micro Small Medium Enterprises)

According to Government Regulation of the Republic of Indonesia Number 7 of 2021 Chapter 1 Article 1, MSMEs are productive businesses owned by individuals and/or individual business entities that meet the criteria of Micro Enterprises. MSMEs are categorized based on business capital or annual sales proceeds as regulated in Chapter 3 Article 35 Government Regulation of the Republic of Indonesia Number 7 of 2021.

III. RESEARCH METHODOLOGY

This study uses a descriptive approach with quantitative data with variables in the study, namely e-commerce (X_1) and financial technology (X_2) as independent variables, and MSME business continuity (Y) as the dependent variable. The population in this study were all MSMEs registered at the Shopee Bandung MSME Campus Indonesia as of December 2023, totally is 103. Sampling in this study used probability sampling with the Slovin formula so that the results of the required number of samples could be obtained, namely 82 samples or 79% of the population. The use of primary data in this study was collected through distributing questionnaires online through google form tools to MSME owners at the Bandung Shopee MSME Campus. This data is categorized as subjective data because it comes from the answers of the questionnaire respondents.

IV. RESULTS AND DISCUSSION

IV.1 Respondent Profile

Respondents in this study are business owners of Micro, Small and Medium Enterprises who are registered with the Shopee Bandung UMKM Campus as of December 2023. In this study, the questionnaire was made using tools in the form of Google Form services. The questionnaire was distributed online through the telegram social media group of members of the Bandung Shopee UMKM Campus. The distribution of this questionnaire was carried out within 1 month, namely from December 18, 2023 to January 18, 2024 which resulted in 103 respondents who were MSME owners registered at the Shopee Bandung MSME Campus. Therefore, the respondents who met the criteria in this study were 103 people, but because the sample needed for this study was only 82 samples, the respondents who could be involved in data processing in this study were 82 people. Based on the data obtained from the questionnaire, the respondents in this study can be classified based on gender, age, business domicile, and year of business establishment.

IV.2 Validity Test

The validity test is to verify that the questionnaire statement items actually measure what is intended. The test results show that the value of r count is greater than r table so it can be concluded that each statement item in the questionnaire is valid and can be used to measure the intended variable.

IV.3 Reliability Test

The reliability test was carried out to measure the consistency of the questionnaire in measuring the research variables. The questionnaire is said to be reliable if the respondent's answers to the same questions at different times are consistent. In this study, the reliability of the questionnaire was measured by the Cronbach's Alpha value. A Cronbach's Alpha value greater than 0.70 indicates that the questionnaire is reliable.

Table 1. Reliability Test

Variable	Cronbach's Alpha	N of Items
E-Commerce	0,703	9
Financial Technology	0,826	16
Keberlangsungan Usaha	0,752	5

Source: data processed by researches

Based on Table.1, the reliability test results can be concluded that each variable question item contained in this questionnaire has consistency to be repeated.

IV.4 Normality Test

The normality test was carried out to ascertain whether the data in this study was normally distributed. Normal data distribution is required for some statistical methods, such as regression analysis. This study uses the Kolmogorov-Smirnov test to ensure the data is normally distributed. Data is declared normal if the Kolmogorov-Smirnov significance value is greater than 0.05.

Table 2. Normality Test

		Unstandardized Residual
N		82
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	2,52860619
Most Extreme Differences	Absolute	,075
	Positive	,065
	Negative	-,075
Test Statistic		,075
Asymp. Sig. (2-tailed)		,200 ^{c,d}

Source: data processed by researches

Based on Table.2 the results of the normality test can be concluded that the Assymp sign (2tailed) value is $0.200 > 0.05$, so it can be concluded that the data is normally distributed.

IV.5 Multicollinearity Test

Multicollinearity testing is an important step in regression analysis to ensure model quality. With appropriate tolerance and VIF values, regression models can be used more reliably and produce more accurate interpretations. The way to determine multicollinearity can be seen by analyzing the tolerance value and variance inflation factor (VIF). If the tolerance value ≥ 0.10 and the VIF value < 10 , it can be said that there is no multicollinearity between the independent variables in the regression model.

Table 3. Multicollinearity Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistic	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-4,851	1,252		-3,874	,000		
E-Commerce	,542	,057	,766	9,453	,000	,297	3,368
Financial Technology	,063	0,029	,177	2,186	,032	,297	3,368

Source: data processed by researches

Based on Table.3, it is known that the tolerance value in this study is > 0.10 and the VIF value is < 10 . So it can be said that the data in this study does not occur multicollinearity.

IV.6 Heteroscedasticity Test

Heteroscedasticity test is conducted to check the inequality of residual variance in the regression model. This is important to ensure the reliability of the model. The method used in this research is rank-Spearman. The decision is based on a significant value > 0.05 , it can be said that there are no symptoms of heteroscedasticity, but if the significant value < 0.05 , it can be said that there are symptoms of heteroscedasticity.

Table 4. Heteroscedasticity Test

			E-Commerce	Financial Technology	Unstandardized Residual
Spearman's rho	E-Commerce	Correlation Coefficient	1,000	,882**	,074
		Sig. (2-tailed)		,000	,507
		N	82	82	82
	Financial Technology	Correlation Coefficient	,882**	1,000	,017
		Sig. (2-tailed)	,000		,882
		N	82	82	82
	Unstandardized Residual	Correlation Coefficient	,074	,017	1,000
		Sig. (2-tailed)	,507	,882	
		N	82	82	82

Source: data processed by researches

Based on Table.4, the results of the heteroscedasticity test show that the significance value of the e-commerce variable ($X1$) = 0.507 > 0.05 and financial technology ($X2$) = 0.882 > 0.05. Therefore, it can be said that the data in this study do not occur symptoms of heteroscedasticity.

iv.7 Multiple Regression Test

Multiple linear regression analysis is used to predict the value of the dependent variable (MSME Business Continuity) based on the value of two independent variables (E-Commerce and Financial Technology). This model helps explain the relationship between the independent and dependent variables, and predicts how changes in the value of the independent variable will affect the value of the dependent variable. Table. 5 Multiple Regression Test.

Table 5. Multiple Regression Test

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistic	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	-4,851	1,252		-3,874	,000		
E-Commerce	,542	,057	,766	9,453	,000	,297	3,368
Financial Technology	,063	0,029	,177	2,186	,032	,297	3,368

Source: data processed by researches

Based on Table.5, the results of multiple linear regression tests resulted in the output of the equation $Y = -4.851 + 0.542 X1 + 0.630 X2 + e$. This equation can be interpreted as a constant value of -4.851 which indicates that if the e-commerce and financial technology variables have a value of zero, then the sustainability of MSME businesses will decrease by 4.851. The regression coefficient on the e-commerce variable is 0.542, which means that if the e-commerce variable increases by one unit, the sustainability of MSME businesses will increase by 0.542, assuming that other variables are considered constant. The regression coefficient on the financial

technology variable is 0.630, which means that if the financial technology variable increases by one unit, the sustainability of MSME businesses will increase by 0.630, assuming that other variables are considered constant.

IV.8 Determination Coefficient Test

The coefficient of determination (Adjusted R-Square) helps assess how much the independent variable contributes to explaining the dependent variable.

Table 6. Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,920 ^a	,846	,842	,565

Source: data processed by researches

Based on Table.6, the results of the coefficient of determination test can be found that 84.2% of the variation in the level of business continuity of MSMEs is explained by e-commerce and financial technology, the rest is influenced by other factors.

IV.9 Partial Test (T-Test)

In this study, a partial test (t-test) was conducted to determine the effect of each independent variable on the dependent variable.

Table 7. Partial Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-4,851	1,252		-3,874	,000
E-Commerce	,542	,057	,766	9,453	,000
Financial Technology	,063	0,029	,177	2,186	,032

Source: data processed by researches

In this study, the determination of the t table value uses a significant value of 0.05 and the degree of freedom (df = degree of freedom) = n-k-1 = 82-3 = 79, so that the t table value is 1.664. Based on the table above, it can be seen that the t value on the e-commerce variable (X1) is 9.453 > 1.664 and a significant value of 0.000 < 0.05 then on the financial technology variable (X2) which is 2.186 > 1.664 and a significant value of 0.032 < 0.05. So it can be concluded that the e-commerce variable (X1) and the financial technology variable (X2) partially affect the MSME business continuity variable (Y).

IV.10 Simultaneous Test (F-Test)

Simultaneous Test (F-test) is conducted to determine the effect of independent variables simultaneously (together) on the dependent variable.

Table 7. Partial Test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	138,265	2	69,132	216,920	,000 ^b
Residual	25,177	79	,319		
Total	163,442	81			

Source: data processed by researches

Decision making in the F test (simultaneous test) is based on if the significant value <0.05 and the calculated F value $> F$ table value, the independent variable affects the dependent variable, while if the significant value > 0.05 and the calculated F value $< F$ table value, the independent variable has no effect on the dependent variable. Based on the table above, it can be seen that the calculated f value is 216.920 with the f table value using the determination (df = degree of freedom) = $n-k = 80$, resulting in an F table value of 3.11. It can be seen that the calculated F value is $216.920 > 3.11$ with a significant value of $0.000 < 0.05$, then H_0 is rejected and H_3 is accepted. Therefore, it can be concluded that the e-commerce (X1) and financial technology (X2) variables simultaneously have a positive and significant effect on the MSME business continuity variable (Y).

IV.11 Discussion

4.11.1 The Effect of E-Commerce on MSME Business Sustainability

Based on the results obtained from hypothesis testing in the partial test, it shows that the e-commerce variable has an influence on the sustainability of MSME businesses of 0.766 or 76.6% with a significant level having a probability value of $0.000 < 0.05$, so it can be said that H_0 is rejected and H_1 is accepted. This indicates that e-commerce has a positive and significant influence of 76.6% which is included in the strong enough category on the sustainability of MSME businesses. The direction of this positive relationship means that the higher the use of e-commerce will also contribute well to the sustainability of MSME businesses. The results obtained in this study explain that e-commerce can directly affect the sustainability of MSME businesses. However, indirectly e-commerce has no influence on the sustainability of MSME businesses. Based on a conversation with one of the respondents, some of the respondents independently registered their stores in e-commerce and joined the Shopee Bandung MSME Campus because of the many benefits they could get by registering their stores in e-commerce and joining the Shopee Bandung MSME Campus. In this case, the majority of respondents already know that e-commerce can help in efforts to sustain their business, this is because the increasing use of e-commerce can make it easier for MSME owners to manage their business.

4.11.2 The Effect of Financial Technology on MSME Business Sustainability

Based on the results obtained from hypothesis testing in the partial test, it shows that the financial technology variable has an influence on the sustainability of MSME businesses of 0.177 or 17.7% with a significant level having a probability value of $0.032 < 0.05$, so it can be said that H_0 is rejected and H_2 is accepted. This indicates that financial technology has a positive and significant influence of 17.7% which is included in the less strong category on the sustainability of MSME businesses. The direction of this positive relationship means that the higher the use of financial technology will also contribute well to the sustainability of MSME businesses. The results obtained in this study explain that financial technology can directly affect the sustainability of MSME businesses. However, indirectly financial technology has no influence on the sustainability of MSME businesses.

This is supported by a conversation with one of the respondents, that they use financial technology because it is directly integrated with the marketplace where they register their shop, making their business activities faster and more efficient in the transaction process and making it easier for MSME players to manage finances digitally. Although financial technology provides efficiency and a good impact on MSME owners, there are several things that are a problem for MSME owners at the Shopee Bandung MSME Campus, such as a sense of security in transactions due to concerns about data security and the risk of fraud that is rampant at this time and financial technology service providers who are less alert in providing services if problems occur that can interfere with business operations. This must certainly be a concern for financial technology service providers to continue to develop and improve their services to provide satisfaction and support the digitalization of MSME owners. MSME owners can also prevent unwanted things, for example by understanding how financial technology service providers work, using strong passwords and continuing to be careful with fraud modes. In addition, if a problem occurs and the service provider is less responsive, MSME owners are expected to remain calm and document the necessary evidence.

4.11.3 The Effect of E-Commerce and Financial Technology on MSME Business Sustainability

Based on the results of the simultaneous F test conducted in this study, it was found that ecommerce and financial technology have a simultaneous positive and significant effect on the sustainability of MSME businesses. The F test results showed that the calculated F value of 216.920 was greater than 3.11, with a significance value of 0.000 less than 0.05. This indicates that e-commerce and fintech have a simultaneous positive and significant effect. The coefficient of determination test (R-squared test) showed that the R-squared value for the ecommerce and fintech variables was 0.842 (84.2%). This means that 84.2% of the sustainability of MSME businesses is influenced by the e-commerce and fintech variables, while the remaining 15.8% is influenced by other variables not used in this study. This reinforces the importance of MSME actors understanding the transition to technological growth and not continuing to apply conventional business practices. E-commerce and fintech have become essential tools for MSMEs to improve their business sustainability in the digital age. Ecommerce platforms like Shopee provide access to a wider market, help MSMEs compete globally, and increase sales. The integration of fintech with marketplaces facilitates financial transactions, improves efficiency, and makes digital financial management easier. By utilizing e-commerce and fintech intelligently and responsibly, MSMEs can open up new opportunities to grow, reach global markets, and achieve success in the digital age.

V. CONCLUSION

Based on the results of the research analysis on the effect of e-commerce and financial technology on the sustainability of MSME businesses at the Bandung Shopee MSME Campus, the results show that the e-commerce variable partially has a positive and significant effect on the sustainability of MSME businesses. Good use of e-commerce can increase the sustainability of MSME businesses, with benefits such as expanding market reach and increasing sales. Financial technology variables also have a positive and significant partial effect, providing convenience and efficiency in transactions and financial management. However, there are concerns related to data security and fraud that need to be addressed with anticipatory steps from MSMEs and improved service quality by providers. Simultaneously, e-commerce and financial technology have an 84.2% influence on MSME business sustainability. The use of both is important in the digital era to open new opportunities, increase efficiency, and facilitate digital business management, so MSMEs need to adapt to this technology to develop and compete globally.

REFERENCES

- [1] Hasan, H. A. (2020). *Dampak Teknologi Dalam Transaksi Bisnis UMKM. JURNAL PILAR: Jurnal Kajian Islam Kontemporer*, 11(2).

- [2] Kementerian Keuangan Republik Indonesia. (2019, September 13). E-Commerce untuk UMKM Dan Pertumbuhan Ekonomi Indonesia. Retrieved from Kementerian Keuangan Republik Indonesia Badan Pendidikan dan Pelatihan Keuangan: <https://bppk.kemenkeu.go.id/pusdiklat-keuangan-umum/berita/e-commerce-untuk-umkm-dan-pertumbuhan-ekonomi-indonesia-237095>
- [3] Kementerian Keuangan Republik Indonesia. (2020, Agustus 24). UMKM Bangkit, Ekonomi Indonesia Terungkit. Retrieved from Kementerian Keuangan Republik Indonesia: <https://www.djkn.kemenkeu.go.id/artikel/baca/13317/UMKM-Bangkit-Ekonomi-Indonesia-Terungkit.html#:~:text=Sementara%20itu%20kontribusi%20UMKM%20terhadap,01%25%20dari%20jumlah%20pelaku%20usaha>
- [4] Kementerian Koperasi dan UKM Republik Indonesia. (2023, Mei 10). Facing Business Challenges in the Digital Era for Small and Medium Enterprises (SMEs). Retrieved from SMesta News: <https://smesta.kemenkopukm.go.id/news/menghadapi-tantangan-bisnis-di-era-digital-untuk-usaha-kecil-menengah-ukm>
- [5] Muzdalifa, I., Rahma, I. A., & Novalia, B. (2018). *Peran Fintech Dalam Meningkatkan Keuangan Inklusif Pada UMKM di Indonesia (Pendekatan Keuangan Syariah)*. *Jurnal Masharif al-Syariah: Jurnal Ekonomi dan Perbankan Syariah*, 3(1).
- [6] Nursani, Arifin, R., & Hufron, M. (2019). *Analisis Pengaruh Kepercayaan, Keamanan, Harga, Kualitas Pelayanan, Dan Persepsi Akan Resiko Terhadap Keputusan Pembelian Pada Konsumen E-Commerce Melalui Shopee (Studi Pada Mahasiswa Unisma)*. *E-JRM: Elektronik Jurnal Riset Manajemen*, 8(9).
- [7] Pemerintah Indonesia. (2021). Peraturan Pemerintah Nomor 7 Tahun 2021 tentang Kemudahan, Pelindungan dan Pemberdayaan Koperasi dan Usaha Mikro, Kecil dan Menengah.
- [8] Permatasari, V. I., Hastuti, & Suwondo, S. (2021). *The Effect of Financial Literacy and Financial Technology on MSME Profits (Survey on MSMEs in Bandung)*. *Atlantis Press: Advances in Engineering Research*, 2017.
- [9] Putri, A. M. (2023, February 7). Jumlah UMKM Capai 8,71 Juta, Bisa Jadi 'Tameng' Resesi? Retrieved from CNBC Indonesia: <https://www.cnbcindonesia.com/research/20230207115843-128-411724/jumlah-umkm-capai-871-juta-bisa-jadi-tameng-resesi>
- [10] Sugiarti, E. N., Diana, N., & Mawardi, M. C. (2019). *Peran fintech dalam meningkatkan literasi keuangan pada Usaha Mikro Kecil Menengah di Malang*. *E-Jurnal Ilmiah Riset Akuntansi*, 8(04).
- [11] Suyadi, Syahdanur, & Suryani, S. (2018). *Analisis Pengembangan Usaha Mikro Kecil dan Menengah (UMKM) di Kabupaten Bengkalis - Riau*. *Jurnal Ekonomi KIAT*, 29(01).
- [12] Verdú, F. M., Soriano, D. R., & Tierno, N. R. (2014). *Firm survival: The role of incubators and business characteristics*. *Journal of Business Research*.