

THE EFFECT OF E-COMMERCE AND THE USE OF MANAGEMENT INFORMATION SYSTEMS ON FINANCIAL PERFORMANCE

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Abstract

After Covid-19, MSME players are trying to utilize technology to develop their businesses to revive themselves and strengthen their market share so they can compete. MSME players try to take advantage of technology through the use of E-commerce and the use of Management Information Systems. The aim of this research is to determine the partial or simultaneous influence of the use of E-commerce and the use of Management Information Systems on the financial performance of Post-Covid-19 Batik MSMEs in Laweyan Surakarta. The method used is quantitative research by distributing questionnaires based on a Likert scale. The research results show that both partially and simultaneously, the use of E-commerce and Management Information Systems has a significant positive effect on the financial performance of Batik MSMEs in Laweyan Surakarta.

Keywords: E-Commerce, Management Information Systems, Financial Performance, MSMEs

Abstrak

Pasca Covid-19, para pelaku UMKM berusaha memanfaatkan teknologi untuk mengembangkan usahanya guna membangkitkan diri dan memperkuat pangsa pasarnya agar mampu bersaing. Pelaku UMKM mencoba memanfaatkan teknologi melalui pemanfaatan E-commerce dan pemanfaatan Sistem Informasi Manajemen. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh secara parsial atau simultan penggunaan E-commerce dan penggunaan Sistem Informasi Manajemen terhadap kinerja keuangan UMKM Batik Pasca Covid-19 di Laweyan Surakarta. Metode yang digunakan adalah penelitian kuantitatif dengan menyebarkan kuesioner berdasarkan skala likert. Hasil penelitian menunjukkan bahwa baik secara parsial maupun simultan, Penggunaan E-commerce dan Sistem Informasi Manajemen berpengaruh positif signifikan terhadap kinerja keuangan UMKM Batik di Laweyan Surakarta.

Kata Kunci: E-Commerce, Sistem Informasi Manajemen, Kinerja Keuangan, UMKM

INTRODUCTION

The era of the Covid-19 pandemic, the outbreak began to spread widely in 2019, making major changes to the business world, both small and large scale. Changes to the transaction system which were initially face to face had to stop due to the implementation of the PSBB, so that many entrepreneurs were forced to go bankrupt because they were unable to survive, especially for MSMEs (Adiningrat et al., 2023). Apart from that, the Covid-19 pandemic has brought about a change in shopping culture from face-to-face shopping to online shopping. Now that WHO has officially announced the end of the Covid-19 global health emergency on Friday 5 May 2023, the online shopping culture carried out during the Covid-19 pandemic is still being carried out by consumers to this day (Tjahjadi et al., 2020). The existence of PSBB regulations has created people's personal awareness to avoid crowds and stay at home. Apart from that, as stated by Natsiruddin et al. (2023) that humans always try to fulfill their needs. This encouragement has led to the rise of online shopping, which has been accompanied by increasingly rapid development of the internet and technology, which has been accompanied by reduced people's activities outside the home, making internet usage activities increasingly high. So, this is an opportunity for entrepreneurs to utilize this technology as a means of running their business such as electronic commerce or usually abbreviated as e-commerce (Puspitasari, 2022; Mukhlis et al., 2022). With e-commerce, it provides a great opportunity for MSMEs, because they can buy and sell online

without having to meet buyers and sellers in person. Many e-commerce platforms are also available such as Shopee, Tokopedia and others (Primasari et al., 2020). Management information systems must increase effectiveness, good planning for the company and produce output data or information that is useful for the company. So that the resulting financial reports will be of good quality if management information system users are able to manage finances honestly without any fraud (Irawati et al., 2019; Syah & El Karen, 2022; Yulfiswandi et al., 2023).

To date, no research has specifically explored this relationship in the region. Thus, this research aims to provide an important contribution in understanding how the adoption of E-commerce and the management of management information systems can influence the financial welfare of MSMEs, especially in the context of the post-Covid-19 pandemic which has had a significant impact on various aspects of business. Thus, it is hoped that this research can provide new insights and practical recommendations to support the growth and continuity of MSMEs in Batik Laweyan Surakarta after the Covid-19 pandemic.

LITERATURE REVIEW

Purnata & Suardikha (2019) found that E-commerce has a positive and significant impact on the financial performance of companies in the Small and Medium Enterprises (SME) category in Denpasar City. These findings suggest that the adoption of E-commerce by SMEs can help improve a company's financial well-being, perhaps through increased sales, operational efficiency, or

access to wider markets. The implications of this research encourage SME entrepreneurs to consider integrating E-commerce in their business strategy as an effort to improve financial performance. Shobayar, & Ahmadi (2012) found different results in their research. They stated that E-commerce has a significant influence on business sustainability. These findings highlight the role of E-commerce in supporting the long-term growth and continuity of business operations, by enabling the adoption of more efficient business practices, increased market accessibility, and technology integration that can increase competitiveness. Thus, this research adds to the understanding of the impact of E-commerce not only on financial performance, but also on overall business sustainability.

Sofiyanti et al. (2021) found that E-commerce does not have a significant influence on company financial performance. These findings suggest that although E-commerce has become an important part of the business strategy of many companies, its impact on financial performance may not be as great as previously thought. This research underlines the importance of considering other factors, such as efficient financial management and appropriate marketing strategies, in an effort to improve a company's financial well-being. Mardhatillah & Yahya (2022) highlight the role of information systems in influencing the quality of company financial reports. They found that accounting information systems provide a positive influence on financial performance, while management information systems contribute to good quality financial reports. These results indicate that investing in developing adequate information systems can

be a more effective strategy in improving financial performance and the quality of corporate financial information than simply relying on E-commerce. Company management needs to comprehensively consider various aspects of information technology in an effort to improve their performance and financial management.

The difference between previous research and the current proposed research is the use of primary data collected in recent times. By using primary data, the proposed research can provide a more accurate picture of the current conditions of the relationship between E-commerce, management information systems, and financial performance among Micro, Small and Medium Enterprises (MSMEs) in Batik Laweyan Post Covid-19. This is important because the economic and business situation may change significantly as the pandemic progresses and related policy changes. The proposed research also fills the knowledge gap in the literature by focusing on the influence of E-commerce and management information systems on the financial performance of MSMEs in Batik Laweyan Post Covid-19.

H1. E-commerce has a positive effect on financial performance

H2. Management Information Systems have a positive effect on Financial Performance

H3. E-commerce and Management Information Systems have a positive effect on Financial Performance.

METHOD

This research is survey research using quantitative methods and analytical research (Spector, 2019). The population in this research

is Surakarta Batik Laweyan MSMEs which use e-commerce and use a management information system for financial reporting, where through interviews with administrators of the Batik Laweyan entrepreneurs' association it is known that there are 40 MSMEs that meet the requirements (Meldona et al., 2022). The variables in this research use independent variables and the dependent variable, namely the effectiveness of financial performance. Measuring e-commerce variables uses Yuscintara & Hendrani (2022) indicators. trading via intranet and internet, trading via systems, trading via internet web facilities and data exchange. Data collection in this study used a questionnaire consisting of closed questions which aims to make it easier for MSMEs to fill in and is easier to analyze and process compared to open question techniques. The population used was Batik MSMEs in Laweyan Surakarta as research objects using the purposive sampling method by taking 80-110 samples, of which there were 5 Strongly Agree, 4 Agree, 3 Doubtful, 2 Disagree, 1 Strongly Disagree. by distributing questionnaires or questionnaires based on a Likert scale. This scale is a scale that can be used to measure the attitudes, opinions and perceptions of a person or group of people towards social phenomena (Kusmaryono et al., 2022). In research, these social phenomena have been specifically determined by the researcher, which are hereinafter called research variables (Sugiyono, 2017).

RESULTS

As can be seen in Table 1, all question items contained in the questionnaire variables

(X1) E-commerce, (X2) Management Information Systems, and (Y) Financial Performance, all items that have been arranged in the questionnaire get R Count > R table. Can It be concluded that all the question items prepared were valid.

Table 1 Validity Test

Variable	P	R-Table	R-Count
E-Commerce	E1	0.344	0.815658
	E2	0.344	0.861362
	E3	0.344	0.913495
	E4	0.344	0.87977
	E5	0.344	0.923442
	E6	0.344	0.940011
	E7	0.344	0.921648
	E8	0.344	0.862237
driver's license	S1	0.344	0.769309
	S2	0.344	0.844262
	S3	0.344	0.779064
	S4	0.344	0.905603
	S5	0.344	0.686047
Financial performance	K1	0.344	0.862259
	K2	0.344	0.876297
	K3	0.344	0.819958
	K4	0.344	0.88236
	K5	0.344	0.782243

Table 2 Reliability Test

Variable	Cronbach Alpha
(X1) E-Commerce	0.95997
(X2) Management information System	0.85280
(Y) Financial Performance	0.89668

From the data from the reliability test results above, it can be concluded that all variables have reliable properties, this can be seen from the Cronbach Alpha value > 0.7.

Table 3 Results of Multicollinearity Testing and Heteroscedasticity Testing

Model	Tolerance	VIF	t	Sig.
(Constant)			2.272	0.025
(X1)	0.586	1.706	-0.877	0.383
(X2)	0.352	2.842	0.377	0.707

The results of the multicollinearity test in table 3 show that the Tolerance Value of all Independent Variables (X) obtained a value of >0.10 and the Variance Inflation Factor (VIF) value of all Independent Variables (X) found in

this study was <10. Based on the test results that have been explained above, it can be concluded that all Independent Variables (X) do not detect symptoms of multicollinearity in the regression model created in this research so that the regression model in this research is feasible and can be used as a medium for further analysis.

The test results obtained as shown in table 3, Variable X1 E-Commerce obtained a value of 0.383 > 0.05.

Table 4 Multiple Linear Regression

Model	Unst. Coef. B	Std. Error	Std. Coef Beta	t	Sig.
(Constant)	11.372	2.100		5.050	0.000
E- Commerce	0.220	0.064	0.194	3.440	0.001
Management Information System	0.075	0.065	0.103	2.330	0.022

The results of analysis 1 in Table 4 show the following regression results $Y = 11.372 + 0.120X_1 + 0.045X_2$. It can be concluded that the constant of the regression model is 11.372 and has a positive sign, meaning that if all the independent variables of e-commerce and management information systems have a value of 0 then the dependent variable of financial performance is 11.372. Second, the regression coefficient X1 e-commerce is 0.120 and the sign is positive, meaning that if e-commerce is high there will be an increase in variable Y financial performance. Third, the management information system regression coefficient.

processed data source, a T value of 3.440 is produced with a significance value of $0.000 < 0.05$, this means that E-commerce has a positive and significant influence on finances. show. So, the hypothesis is accepted. The better E-commerce is, the more financial performance will improve. E-commerce provides features that are easy to access, attractive to customers, provide convenience in purchasing and are able to provide fast responses to consumers. Second, based on the processed data source, a T value of 2.330 was produced with a significance of $0.002 < 0.05$. These results mean that management information systems have a positive and significant effect on financial performance so that the hypothesis is accepted. The better the use of management information systems, the more financial performance will increase. Management information systems can be used to order raw materials, the number of raw materials used, and find out the amount of production each day.

Table 5 Partial Hypothesis Test

Model	T	Sig.
(Constant)	5.050	0.000
E-Commerce	3.440	0.001
Management information System	2.330	0.022

T Test Results In table 5, based on the

Table 6 F Test (Simultaneous)

Model	Sumof Squares	Df	Mean Square	F	Sig.	R Square	Adj. R Square
Regression	3422.338	2	1720.169	83.496	0.000b	0.675	0.667
Residual	1979.145	97	20.517				
Total	5419.483	99					

Table 6, shows the results of the 5% significance test together or simultaneously (F test) in the table above shows sig. $0.00 < 0.05$. Meanwhile, the results obtained from the calculated F value were 83.496. This means that the Fcount value is greater than Ftable, namely $83.496 > 309$, which means H_a is accepted and H_o is rejected. Based on the results of the F test, E-commerce and Management Information Systems simultaneously influence financial performance.

The results show an R Square value of 0.675 or 67.5%. This shows that there is an influence of e-commerce (X1) and X2 The use of management information systems on the financial performance of MSMEs is 67.5% and then the remaining 32.5% is influenced by other variables that are not used in this study.

CONCLUSION

Based on the results above, it can be concluded that the influence of the use of e-commerce and management information systems on the financial performance of Batik MSMEs after Covid-19 in Laweyan Surakarta shows a positive influence. The better the use of e-commerce, the financial performance of Batik MSME players will increase. Then, the management information system variable has a positive effect on the financial performance of Batik MSME players. This means that the majority of MSMEs understand how to record income and expenditure through the use of a system, but there are still some MSMEs who state that their understanding of cash income and expenditure is not optimal. There is a need for training and outreach to staff regarding the management information system used.

Simultaneously, both e-commerce variables (X1) and management information systems (X2) influence the financial performance of Batik MSMEs after Covid-19 in Laweyan Surakarta. The magnitude of the influence of these two variables is 67.5%, while 32.5% is influenced by other variables not studied. This situation shows that the Surakarta government and Batik MSME players are able to increase the use of e-Commerce and management information systems considering increasingly rapid technological developments.

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