
An Analysis of The Factors Influencing the Use of Accounting Information Systems Based on E-Commerce in MSMEs

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ABSTRACT

Analysis of the variables influencing how MSMEs employ e-commerce-based accounting information systems. The goal of this study is to determine the effects of accounting knowledge, sales turnover, educational attainment, and business age on MSMEs' use of e-commerce-based accounting information systems. This research was conducted on MSMEs in Pare District, Kediri Regency with a total population of 588. sampling in this study used the Slovin formula, totaling 85 samples. Multi-linear regression analysis utilizing the SPSS 21 program is the analytical technique used. This research uses quantitative methods with causal study techniques. Based on the tests conducted in this study, the utilization of e-commerce-based accounting information systems is significantly influenced by Education level and business age both have an impact on sales turnover, accounting knowledge, and the adoption of e-commerce-based accounting information systems simultaneously (together), while the variables of accounting knowledge and business age sales turnover and educational level partially have no significant impact on any of these variables.

Keywords: Use of Accounting Information System Based on E-commerce, Accounting Knowledge, Sales Turnover, Educational attainment, Business Age

INTRODUCTION

The progress of the information age in Indonesia is currently growing rapidly, this is shown through the use of technology. It can be seen that currently, more and more users are utilizing technology, one of which is an information system which has now had a very large influence in various fields, one of which is accounting. This is inseparable from the importance of accounting for commercial corporate entities, even for non-profit business entities. The current accounting information system is also maximized by MSMEs. To be able to maximize digital development for the progress of the business being run.

Digital business users in Indonesia are currently increasing, especially during the Covid-19 pandemic in 2019 which caused a prolonged crisis, including the economic crisis. This is due to government policies that require people to limit their activities which causes the pace of the economy to slow down and even decline. The impact of the Covid-19 pandemic has affected buying and selling activities so it affects MSMEs. Buying and selling activities of MSME business actors, which have been carried out directly and face-to-face, have almost stopped completely. Finally, MSMEs carry out activities online, because they see that many people use technology for activities during the Covid-19 pandemic. This habit finally made MSMEs start to improve and utilize information technology, namely e-commerce.

E-commerce is an option for business people to expand their business. Factors that make business people choose e-commerce are easy to implement, minimal risks, and easy to gain consumer trust. The benefits of e-commerce are believed to make it simpler for business owners to manage and expand their enterprises because they can buy and sell activities via the Internet without having to come to the store (Deananda et al., 2020). The City of Kediri has 26 Districts and one of the Districts with MSMEs that has the potential to be studied is MSMEs in Pare District. According to BPS sources, Firda (2022) the number of MSMEs in Pare District is quite large, namely around 433 MSMEs. The reason for the researcher to make Pare District an object is because Pare District is one of the developing locations in Kediri Regency, besides that Pare District is an educational destination and

also a culinary tourism destination, and currently Pare District is trying to become a business center location.

Research purposes consist of (1) To research the effect of accounting knowledge on MSMEs in Pare District, Kediri Regency's adoption of e-commerce-based accounting information systems in 2023; (2) To research the effect of sales turnover on MSMEs in Pare District, Kediri Regency's adoption of e-commerce-based accounting information systems in 2023; (3) To research the effect of education level on the use of e-commerce-based accounting information systems for MSMEs in Pare District, Kediri Regency in 2023; (4) To research the effect of business age on MSMEs in Pare District, Kediri Regency's adoption of e-commerce-based accounting information systems in 2023; (4) To research the effect of accounting knowledge, sales turnover, education level, business age simultaneously on MSMEs in Pare District, Kediri Regency's adoption of e-commerce-based accounting information systems in 2023.

LITERATURE REVIEW

An Explanation of Small, Medium, and Micro Establishments

Micro, Small, and Medium Corporations are successful economic enterprises run by people of legal organizations with a limited amount of startup funding

Utilization of Accounting System-Based on E-commerce

Jannah & Triyanto, (2021) defines the e-commerce accounting information system as transparent and can provide an opportunity for users to access several accounting systems in e-commerce, especially users who can buy and sell goods and view inventory.

Factors in Utilizing Accounting Information Systems Based on E-commerce *Accounting Knowledge*

The owner's low accounting knowledge causes many failures, this happens because of the weakness of the company owner or manager in accounting knowledge in developing his business. Therefore accounting knowledge is very important to be able to use accounting because it can assist in studying and assessing accounting information systems through the insights and experience possessed by business actors.

Sales Turnover

Understanding turnover in terms of language means quantity, while sales are an activity of offering goals to seek and obtain income or income. The function of the accounting information system, especially as a promotional strategy in business, is to increase revenue or turnover. The promotion strategy is often said to be a continuous process because promotion can stimulate the activities of the next company.

Level of education

The education level is a stage that is determined based on the extent to which students advance, what goals they want to achieve, and how eager they are to grow. Nirwana & Purnama (2019) defines that a high level of education will obtain better information and apply it to daily behavior and lifestyle. Because with a high level of education, a business actor will more easily recognize the use of e-commerce-based accounting information system architectures

Business Age

The business age is an aspect that affects business continuity because the longer a business is run, problems will arise that hinder business actors, so that business actors are required to find solutions, one of which is by using an accounting information system. This makes intellectual knowledge and the selection of business actors run.

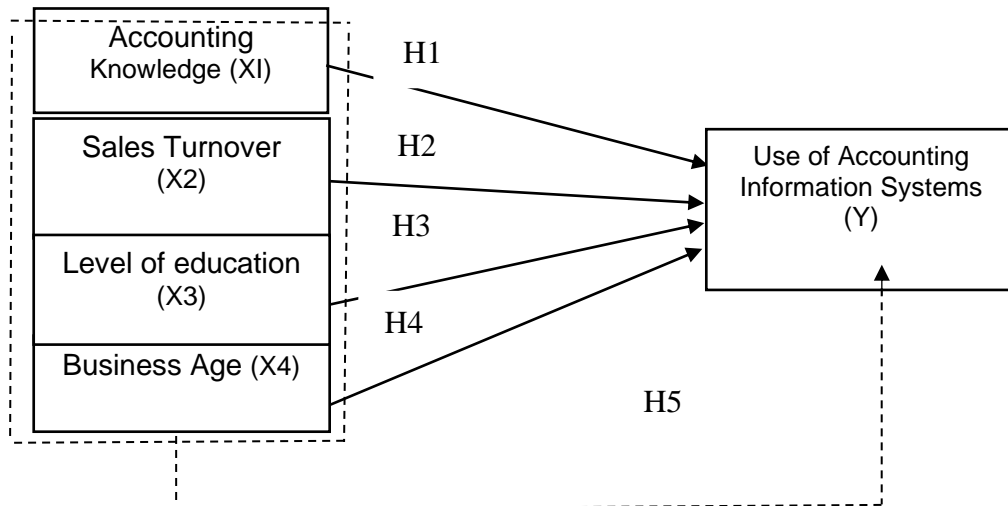


Figure 1. Research Model
 Source: Author Analysis, 2023

METHODS

Research approach, place, and time of research

The research employs a quantitative research methoapproach with causal quantitative research techniques. This study compiled research instruments using questionnaires to obtain research data. This research was conducted on MSMEs in Pare District, Kediri Regency. The time used by researchers is approximately 3 months, from April 2023 to June 2023.

Population and Sample

MSMEs in Pare District, Kediri Regency, totaling 588 in number, were the population chosen for this study. According to Sugiyono (2021), the sample is one of the many sorts and features that this population possesses. Simple random sampling was used for the study’s sampling. Using the Slolvin formula, the sample size is determined as follows:

$$n = \frac{N}{1+Ne^2}$$

Information

n: Sample size

N: Population Size

E: Error /inaccuracy due to tolerable sampling error (10%)

$$n = \frac{N}{1+Ne^2}$$

$$n = \frac{588}{1+588 (10)^2}$$

n = 85.46 rounded up to 85

Considering the outcomes of the calculations above, the sample used in this study was 85 MSMEs in Pare District, Kediri Regency

RESULTS

Analysis of multiple linear regression

Sugiyono (2021) asserts that "multiple regression analysis is primarily utilized to analyze the effect of several independent variables to analyze the impact of several independent variables on one dependent variable.

Table 1. Multiple Linear Regression Test Results

Model	Unstandardized Coefficients	
	B	Std. Error
(Constant)	20.952	2.225
Accounting Knowledge	-.267	.092
Sales Turnover	-.011	.076
Level of education	.123	.083
Business Age	-.334	.096

Source: processed data 2023

Based on Table 1. The results of the resulting regression equation are:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

$$Y = 20,952 - 0,267(X_1) - 0,011(X_2) + 0,123(X_3) - 0,334(X_4)$$

The constant value (a) is 20,952 meaning that if accounting knowledge (X1), sales turnover (X2), education level (X3), and business age (X4) have a value of 0 then applying an online accounting information system is worth 20,952.

The use of an e-commerce-based accounting information system increases by 1 unit for every 1 unit increase in the accounting knowledge variable, according to the regression coefficient value for the accounting knowledge variable, which is -0,267, assuming that all other variables remain constant.

The use of an e-commerce-based accounting information system increases by 1 unit for every 1 unit increase in the accounting knowledge variable will decline variables of 0.011 assuming that other variables have constant values, according to the regression coefficient value for the accounting Sales Turnover variable of -0.011.

The use of an e-commerce-based accounting information system increases by 1 unit for every 1 unit increase in the accounting knowledge variable, according to to the regression coefficient value of 0.123 for the accounting level of education variable, assuming that all other variables have constant values.

The business age variable's regression coefficient value is -0,334, suggesting that the use of an accounting information system based on e-commerce will decline by 0.334 units for every unit increase in the accounting knowledge variable, assuming that other variables have constant values.

Test the Coefficient of Determination (R²)

The coefficient of determination, by Ghozali (2018), aims to assess how well the model can take into account the variance of the dependent variable.

According to the data in the table above, the coefficient of determination (R Square) has a value of 0.214, indicating that accounting knowledge factors, sales turnover, educational level, and business age may account for 21.4% of accounting information systems based on e-commerce use. While other elements that were not taken into account in this study affect the remaining 78.6%.**3. Testing of Hypothesis a**

Table 2. Analysis of Coefficient of Determination (R²) Results

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.463 ^a	.214	.175	1.47515

Source: Processed Data, 2023

Partial Test (t-test)

The t-statistical test, according to Ghozali (2018), essentially demonstrates how much an independent variable can explain the dependent variable on its own.

Table 3. Test Results t

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.952	2.225		9.415	.000
	Accounting Knowledge	-.267	.092	-.290	-2.903	.005
	Sales Turnover	-.011	.076	-.014	-.140	.889
	Level of education	.123	.083	.150	1.494	.139
	Business Age	-.334	.096	-.346	-3.484	.001

Source: Processed Data, 2023

It is known that based on the estimate above: (1) Because the accounting knowledge variable has a significant value of $0.005 < 0.05$, the hypothesis is supported, H₀ is rejected, and H_a is accepted; (2) The H₀ is accepted and the H_a is rejected since the hypothesis is unproven and the sales turnover variable has a significant value of $0.889 > 0.05$. This shows that the use of accounting information systems based on e-commerce is not greatly influenced by sales turnover; (3) Since the hypothesis is unproven, the educational level variable receives a significant value of $0.139 > 0.05$, which means that H₀ is accepted and H_a is rejected. This demonstrates that the use of e-commerce-based accounting information systems is not significantly influenced by one's level of education; (4) The hypothesis is supported, H₀ is rejected, and H_a is accepted because the operational age variable has a significant value of $0.001 < 0.05$. This demonstrates that the usage of accounting information systems based on e-commerce has a substantial impact on the business age.

Simultaneous Test (Test F)

"The F statistical test shows whether all the independent variables included in the model have a joint effect," claims Ghozali (2018).

The usage of accounting information systems-based e-commerce was the dependent variable, and the F test was used to determine if all of the independent variables, namely educational level (X₁), sales turnover (X₂), educational level (X₃), and business age (X₄), might simultaneously (together) affect this variable. According to the findings of the F test, a significant value of $0.001 > 0.05$ indicates that H_a is accepted whereas H₀ is rejected. So, according to hypothesis number four in this study, the use of accounting information systems based on e-commerce is significantly influenced simultaneously (all at once) by accounting knowledge, sales turnover, educational attainment, and business age.

Table 5. F Test Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	47.491	4	11.873	5.456	.001 ^b
	Residual	174.086	80	2.176		
	Total	221.576	84			

Source: Processed Data, 2023

DISCUSSION

The research's findings are discussed in the section above, which addresses the issue of the correlation between accounting knowledge variables, sales turnover, educational attainment, and business age. On the subject of using e-commerce-based accounting information systems, the following can be explained:

The Effect of Accounting Knowledge on the Use of E-Commerce-Based Accounting Information Systems

The results of testing the first hypothesis indicate that the regression coefficient is equal to -0.257 and that the significant value of 0.005 is less than 0.05. E-commerce-based accounting information systems have a substantial impact on the value of using accounting knowledge. The regression value, however, shows that the utilization of e-commerce-based accounting information systems is negatively impacted by accounting knowledge. The study's findings indicate that using accounting information systems based on e-commerce is influenced by accounting knowledge. The regression coefficient's negative value implies that the use of an e-commerce-based accounting information system increases as accounting knowledge among MSME players increases. This demonstrates the fact that SMEs continue to be unaware of the value of employing e-commerce-based accounting information systems for their line of work.

The results of this study are in line with those of a study by Kurnawan et al. (2020), which discovered that accounting expertise has a substantial impact on how accounting information is used.

Use of E-Commerce Based Accounting Information Systems and Sales Turnover

The regression coefficient is -0.011, according to the findings of testing the second hypothesis, and the significant value of 0.889 is higher than 0.05. This shows that the sales turnover variable has no appreciable influence on the usage of accounting information systems based on e-commerce, while the regression value indicates that sales turnover has a negative influence. According to the study's conclusions, sales turnover has little impact on whether accounting information systems based on e-commerce are adopted. Therefore, regardless of how much or how little revenue is created, using accounting information systems is not a certainty. This is because MSME firm actors are unaware of how important it is to adapt to changes in accounting information systems.

The findings of this study corroborate those of Listifa & Agus (2021), who found no relationship between firm turnover and the utilization of accounting information.

Use of E-commerce-Based Accounting Information Systems and Educational Level

The third hypothesis test findings indicate that the regression coefficient is 0.123 and that the significant value of 0.139 is greater than 0.05. This demonstrates that the variable level of education has no discernible impact on the use of accounting information systems based on e-commerce, however, the regression value suggests that the level of education has a favorable impact on the use of accounting information systems based on e-commerce. The study's findings indicate that the use of an e-commerce-based accounting information system is unaffected by One's level of education. Because business actors are aware that

using an e-commerce-based accounting information system can be learned through experience gained rather than just through higher education, a level of high or low education will not guarantee its use in an MSME. owned by commercial actors.

This is consistent with research by Kurniawan et al. (2020), which claims that the level of education a person has does not affect how they use accounting data.

The impact of the business age on the adoption of accounting information systems based on e-commerce

The findings of the fourth hypothesis test indicate that the regression coefficient is equal to -0.334 and that the significant value of 0.001 is less than 0.05. This demonstrates that the operational age variable has a considerable impact on the use of accounting information systems based on e-commerce, whereas the regression value suggests that business age has a detrimental impact on the use of accounting information systems based on e-commerce. The results of this study imply that the utilization of accounting information systems based on e-commerce is significantly influenced by business age. The regression coefficient's negative value suggests that when an establishment's age increases and it is owned by MSME players, the use of e-commerce-based accounting information systems declines. This means that MSME actors are not yet aware of what impact this will have on the business they run in the future. That the longer the business is run, problems will arise that hinder business actors, so that business actors are required to find solutions, one of which is using an e-commerce-based accounting information system.

According to Nirwana & Purnama's research (2019), business age has a favorable impact on the utilization of accounting information.

Effects of Business Age, Education Level, Sales Turnover, and Accounting Knowledge on the Use of E-Commerce-Based Accounting Information Systems

Based on the results of the F test, an essential value of 0.001 is less than 0.05. This demonstrates how using an accounting information system based on electronic commerce is influenced concurrently (simultaneously) by accounting competence, sales turnover, educational attainment, and business age. Table 4.14 shows that the R Square determination value is 0.214, meaning that the factors of accounting knowledge, sales turnover, education level, and business age can account for 21.4% of the adoption of e-commerce-based accounting information systems. While additional factors outside the scope of this study have an impact on the remaining 78.6%.

This is in keeping with Fitriani et al.'s (2019) assertion that the usage of accounting information in MSMEs is simultaneously (simultaneously) influenced by the owner's education, business age, sales turnover, and accounting skills.

CONCLUSION

The following conclusions may be taken from scientific data on the elements that affect MSMEs' use of e-commerce-based accounting information systems in Pare Distric as are followst: (1) The results of the data analysis and discussion indicate that the level of accounting knowledge has a significant influence on the adoption of an Accounting information system based on e-commerce; (2) The results of the data analysis and discussion show that the level of sales turnover significantly affects the utilization of Accounting information system based on e-commerce; (3) The results of the data analysis and discussion indicate that the level on education has a significant influence on the adoption of Accounting information system based on e-commerce; (4) The results on the data analysis and discussion show that the degree of business age significantly affects the deployment of an e-commerce-based accounting information system; (5) The amount of accounting expertise, sales volume, educational attainment, and business age all have a big impact on how e-commerce-based accounting information systems are used.

REFERENCES

- Deananda, A., Budiastuti, P. & Muid, D. (2020). Analisis Faktor-Faktor Pengaruh Minat Penggunaan Sistem Informasi Akuntansi Berbasis E-Commerce Pada Aplikasi Shopee Dengan Menggunakan Technology Acceptance Model (Tam). *Diponegoro Journal of Accounting*, 9: 1–10. Tersedia di <http://ejournal-s1.undip.ac.id/index.php/accounting>.
- Firda, I. (2022). Kecamatan Pare dalam Angka 2022 pare District in Figures 2022. *Badan Pusat Statistik Kabupaten Kediri*, 1–172.
- Fitriani, Sukesti, F. & Kristiana, I. (2019). Analisis Faktor-Faktor Yang Mempengaruhi Penggunaan Informasi Akuntansi Pada Usaha Mikro, Kecil Dan Menengah (Studi Empiris pada UMKM di Kecamatan Tembalang, Kota Semarang). *Prosiding Mahasiswa Seminar Nasional Unimus*, 517–527.
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25*. Semarang: Badan Penerbit Universitas Diponegoro.
- Jannah, A.N. & Triyanto, E. (2021). Analisis Faktor–Faktor Yang Mempengaruhi Penggunaan Informasi Akuntansi Berbasis E-Commerce Pada Umkm. *Jurnal Akuntansi*, 16: 8–15. Tersedia di <http://jurnal.unsil.ac.id/index.php/jak/article/view/2800>.
- Kurniawan, M.A., Mahsuni, A.W. & Hariri. (2020). Analisis faktor-faktor yang mempengaruhi penggunaan informasi akuntansi pada usaha UMKM (Studi empiris pada UMKM di Kota Malang). *E-Jra*, 09(02): 132–145. Tersedia di <http://riset.unisma.ac.id/index.php/jra/article/download/7866/6408>.
- Listifa, W. & Agus, N.S. (2021). Analisis Faktor-Faktor Yang Mempengaruhi Usaha Mikro Kecil Dan Menengah (Studi Kasus Pada UMKM di Kabupaten Magelang). *Journal of Economics, Business, and Engineering (JEBE)*, 2(2): 273–281.
- Nirwana, A. & Purnama, D. (2019). Pengaruh Jenjang Pendidikan, Skala Usaha Dan Lama Usaha Terhadap Penggunaan Informasi Akuntansi Pada Umkm Di Kecamatan Ciawigebang. *Jurnal Riset Keuangan Dan Akuntansi*, 5(1): 55–65.
- Sugiyono. (2021). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.