

Effect of Information Technology and E-Commerce on The Quality of Accounting Information Systems

Yeni Anggraini¹, Lesi Hertati², Vhika Meiriasari³

^{1,2,3} Fakultas Ekonomi, University Indo Global Mandiri Palembang, Indonesia

ARTICLE INFO

Article history:

Received Jun 04, 2023

Revised Jun 16, 2023

Accepted Jun 24, 2023

Keywords:

Information Technology,
E-Commerce,
Quality Of Accounting
Information Systems.

ABSTRACT

This study aims to determine the effect of information technology and e-commerce on the quality of accounting information systems for gofood traders in the jakabaring sub-district. The Selected sample is 70 respondents using non-probability sampling method. The data for this study were obtained from a questionnaire (primary). The analysis technique used in this research is descriptive statistical test, data quality test, classical assumption test, multiple linear regression test, and hypothesis test. The results of data analysis with SPSS 26 show that the results of the simultaneous hypothesis test (F-test) based on the value of the coefficient of determination or Adjusted R Square (R²) of 0.396 or 39% prove that the variables of information technology and e-commerce together have a positive and significant effect on the quality of accounting information systems. Information technology (X1) and e-commerce (X2) and partial hypothesis test results (t-test) Information technology (X1) and e-commerce (X2) affect the quality of accounting information systems (Y).

This is an open access article under the [CC BY-NC](#) license.



Corresponding Author:

Yeni Anggraini
University Indo Global Mandiri Palembang, Indonesia
Jalan Jenderal Sudirman No 629 KM 4 30128 Palembang South Sumatra, Indonesia
Email: anggrainiy157@gmail.com

1. INTRODUCTION

The rapid advancement of the world of technology in information requires business people to be able to understand and utilize it in business activities as an effort to increase competitiveness. The drastic increase in the number of internet users every year, as well as consumer behavior that wants fast information and transactions that can be carried out for 24 hours, is allegedly a driving factor in the development of rapid growth in today's business environment has made information systems and information technology an important part or component that helps companies to target in achieving their goals. information technology has become all the ingredients needed in several strategic directions (strategic thrust) that have been initiated by businesses to find the challenges of change (Hertati et al., 2019).

Information technology is part of e-commerce where individual-based business transactions using internet networks (digital network-based technology) are a type of business mechanism carried out electronically that focuses on the exchange of goods and or services across time and space constraints (Romney & Steinbart, 2018). The exchange can occur between two institutions (business to business) or between institutions and direct consumers (business to consumer). e-commerce and Gojek are dominant enough to dominate trade, shifting existing conventional trade. E-Commerce is included in the strategic environment of information technology-based companies making business people compete to create the latest

innovations and see from the phenomena that occur in society, currently the internet is very influential in people's lives the rise of smartphone users both android and ios makes people dependent on cellphones and the internet. especially at this time culinary entrepreneurs use technological sophistication to market their wares or food via the internet. That way many consumers can order their food easily (Julioe, 2017).

Of course, the existence of E-Commerce as a medium for transactions of goods and services through web-based information systems or electronic media has a significant influence on prospective entrepreneurs, as it is known that one of the obstacles for prospective entrepreneurs who will start their business is limited capital (Al-Gahtani et al., 2007). E-Commerce provides a solution where with relatively small capital a business or business can be done. Website technology used in the concept of E-Commerce allows a medium to provide information that can be accessed from various parts of the world or any country as long as the internet network is available. Easy access to the internet either through Wireless Fidelity (wifi) networks or gadget devices can make it easier for entrepreneurs to provide and convey information about a product or service sought by consumers. So, for small businesses and medium-sized businesses, the website plays a dual role, namely as a virtual store as well as a cheap and appropriate promotional media.

In line with the role of E-Commerce, Romney & Steinbart (2018) state that information is data that has been organized and processed to provide meaning and improve the decision-making process. Also supported by Al-baab et al., (2019) which says that information systems are a very important part of a company system. The information system will produce the information needed by management accurately, quickly, and on time. One of the information systems that play an important role for entrepreneurs is the accounting information system (AIS). SIA plays a role in processing accounting and financial data, namely storing, recording, collecting data which is processed into information so that it can be used for decision making.

The current era of globalization demands that manual data processing is no longer relevant and accurate for companies. This is because the errors that occur due to manual processing can no longer be neutralized. Where the information generated by these errors is no longer accurate to be used as a basis for decision making. That is why currently the existence of SIA is becoming increasingly important for a company. Initially the existence of this information system was to collect, process, store, calculate, analyze, and disseminate information for specific purposes. However, currently AIS has a very important impact on the company, namely providing added value for its users because in the end it will have an impact on improving the overall performance of the company.

The existence of an accounting information system cannot be denied as a factor that determines the ease of running an entrepreneur. This is in line with the findings of Pramiswari & Dharmadiaksa (2017) which state that accounting information systems have a positive effect on decisions to become entrepreneurs.

Business model innovation that continues to develop is a strategic step for the company, which determines the success or failure of a company in business competition which is currently becoming increasingly fierce to be able to grow and survive. New business models that emerge urge old business models to change to keep up with the times or be eroded by the times. The invention of the internet and technological innovations, especially information and digital technology, are driving rapid changes in the way humans interact and communicate, as well as in the way humans do business. A new economic movement called the sharing economy has emerged, also known as the collaborative economy or shared economy. The lifestyle of people who use GoFood services says that the lifestyle of people today who 'like' ordering food is one of the foundations of the increasing use of GoFood services. Especially from the angle of culinary entrepreneurs, they use GoFood services to make it easier for them to market their food (Julioe, 2017)

2. RESEARCH METHOD

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics set by researchers to study and then draw conclusions. In this

study the authors took a population associated with the variables studied, namely the culinary business that partnered with Gofood in the jakabaring sub-district in 2022 which was still active, totaling 231 culinary businesses that partnered with Gofood. this research was not carried out on the entire population, but focused on the targets that had been made on objects that were in accordance with the research objectives. this research was taken from the gojek application (Margareta & Setiawati, 2019).

The sampling method used is nonprobability sampling using purposive sampling technique, with the aim of obtaining samples that meet the criteria. The purposive sampling technique is a sampling technique with consideration of the number of samples in this study calculated using the following Slovin formula: (Margareta & Setiawati, 2019).

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

Description:

n= Number of samples

N = Number of all members of the population

E = tolerance of error 10% = 0.1)

Then the sample size in this study is:

$$n = \frac{231}{1+231(0,1)^2} = 69,7$$

The data collection method used by researchers to collect data, the method used is a survey in the form of a questionnaire, namely by giving a set of questions or written statements via googleform to each respondent to answer. The type of questionnaire chosen by the researcher is a closed questionnaire type where the researcher has provided answers on the questionnaire sheet so that the respondent only needs to choose one of the answers that are already available either on the link or on the questionnaire sheet This is done so that the answers filled in are in accordance with the needs of the researcher. Measurement of each variable in this study using the Liker scale technique. (Margareta & Setiawati, 2019).

3. RESULTS AND DISCUSSIONS

Data Analysis

Descriptive Statistical Test Analysis

Descriptive aims to analyze data by describing or describing the data collected in the field related to variables. in this study consists of one dependent variable, namely the Quality of Accounting Information Systems and 2 independent variables including information technology and e-commerce. The descriptive statistical results obtained from data processing in the study can be seen in table 6 below:

Table 1. Descriptive Statistical Test

	N	Descriptive Statistics			
		Minimum	Maximum	Mean	Std. Deviation
X1 TOTAL	70	6	30	25.79	3.745
X2 TOTAL	70	12	30	25.07	3.564
Y TOTAL	70	9	25	21.14	3.406
Valid N (listwise)	70				

Based on the table above, it is known that the results of descriptive statistical tests with the amount of data processed are 70 respondents. Variable X1 information technology has the highest value of 30 and the lowest value of 6 while the average value is 25.79 and the standard deviation obtained is 3.745.

The X2 e-commerce variable has the highest value of 30 and the lowest value of 12 while the average value is 25.07 and the standard deviation obtained is 3.564. Variable Y The quality of the accounting information system has the highest value of 25 and the lowest value of 9 while the average value is 21.14 and the standard deviation obtained is 3.406.3.3.2

Uji Reabilitas

Reliability is carried out with the intention of the level of accuracy or reliability of the questionnaire in measuring the results of the study said to be reliable if there is the same data in the questionnaire. Reliability tests can be carried out together on all questions. If the Alphan value > 0.06 then it is reliable.

Table 2. Reliability Test

No	Variable	Alpha		Keterangan
1	Information Technology	0,900	>0,6	Reliebel
2	E-Commerce	0,831	>0,6	Reliebel
3	Accounting information system quality	0,885	>0,6	Reliebel

Source: Data processed with SPSS Vers 26.0.

Table 2. shows that the results of the instrument reliability test were 70 respondents who were registered as Gofood traders in the jakabaring sub-district

The reliability of a variable is said to be good if it has a Cronbach Alpha value > 0.06. And vice versa the reliability of a variable is said to be unfavorable if it has a Cronbach Alpha value > 0.06. Based on the statistical test results in the table above, it shows that the information technology statement variable has a Cronbach Alpha value of 0.900 > 0.06, the E-commerce variable has a Cronbach Alpha value of 0.831 > 0.06 and the quality of the accounting information system Cronbach Alpha 0.885 > 0.06. This shows that each statement item used will be able to obtain consistent data, which means that if the question is asked again, it will get an answer relative to the previous answer.

Validity Test

The validity test is used to measure whether a questionnaire is valid or not. A questionnaire item can be declared valid if the value of $r_{count} > r_{table} (n-2)$. Validity testing can be seen in the following table:

Table 3. Validity Testing Results

No	Variable	r count	Sig. (2-tailed)	Description
Information Technology (X1)				
1	X1.1	0,792	.000	Valid
2	X1.2	0,848	.000	Valid
3	X1.3	0,776	.000	Valid
4	X1.4	0,870	.000	Valid
5	X1.5	0,790	.000	Valid
6	X1.6	0,846	.000	Valid
E-commerce (X2)				
1	X2.1	0,775	.000	Valid
2	X2.2	0,738	.000	Valid
3	X2.3	0,794	.000	Valid
4	X2.4	0,761	.000	Valid
5	X2.5	0,668	.000	Valid
6	X2.6	0,691	.000	Valid
Accounting information system quality (Y)				
1	Y.1	0,831	.000	Valid
2	Y.2	0,859	.000	Valid

3	Y.3	0,910	.000	Valid
4	Y.4	0,856	.000	Valid
5	Y.5	0,685	.000	Valid

Source: Data processed with SPSS Vers 26.0.

Based on table 3. the validity test results show the correlation numbers for all questions with $r_{count} > r_{table}$ at a significant level < 0.05 , thus each variable indicator is declared valid for use as an instrument in research.

Classical Assumption Test

Normality Test

Normality test to see if the regression value requires normality in the residual value not in each research variable. The normality test is used to test whether the independent / independent variable (X) and the dependent / dependent variable (Y) are in regression. The following is a data normality test graph on the pp-plot graph.

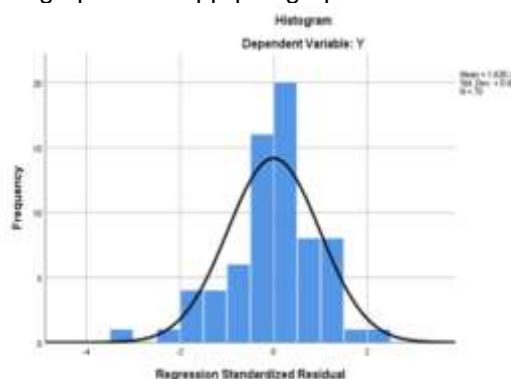


Figure 1. Histogram of Normality Test

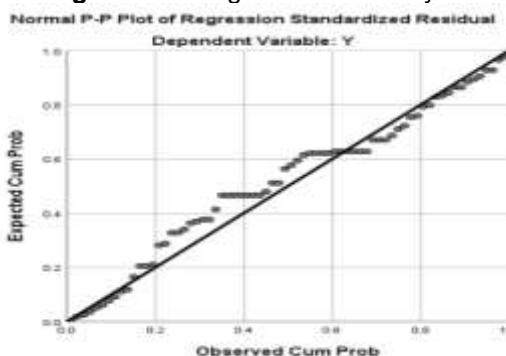


Figure 2. PP-plot normality

Source: Data processed with SPSS Vers 26.0

Based on the normal pp-plot graph in the figure above, it shows that the regression model is suitable for use in this study because the normal plot graph shows that the points spread around the diagonal line and the distribution follows the direction of the diagonal line so that it fulfills the requirements of the normality assumption.

Multicollinearity test

The multicollinearity test to detect the presence or absence of multicollinearity in the regression model is if the VIF value < 10 or the Tolerance value > 0.01 , it is stated that there is no multicollinearity, while if the VIF number > 10 or the Tolerance value < 0.01 , it is stated that there is multicollinearity. The results of the multicollinearity test that have been carried out in this study are as follows:

Table 4. Multicollinearity Test

Model	Coefficients ^a				T	Sig.	Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients				Tolerance	VIF
	B	Std. Error	Beta					
(Constant)	4.586	2.429			1.888	.063		
X1 TOTAL	.303	.119	.333		2.553	.013	.514	1.945
X2 TOTAL	.349	.125	.365		2.797	.007	.514	1.945

a.

Dependent Variable: Y TOTAL

Based on Table 4, it shows the results of the multicollinearity test with a VIF value of 1.945 for variable X1, with a tolerance value of 0.514. VIF value is 1.945 for the Organization Size variable with a resulting tolerance value of 0.514. This explains that the VIF value is smaller than 10 and the tolerance value is greater than 0.1, so it can be said that the X1 and X2 variables in this study do not contain multicollinearity.

Heteroscedasticity Test

Heteroscedasticity test to determine whether the regression model occurs inequality of variance between one another. In this study to see ZPRED and its residue SRESID. Detection of the presence or absence of heteroscedasticity can be done by looking at the presence or absence of certain patterns on the Scatterplot Graph between SRESID and ZPRED where the Y axis is the predicted Y. And the X axis is the residual (Y predicted - Y actual) that has been studentized. The results of the hereroskedastistic test can be seen in the figure:

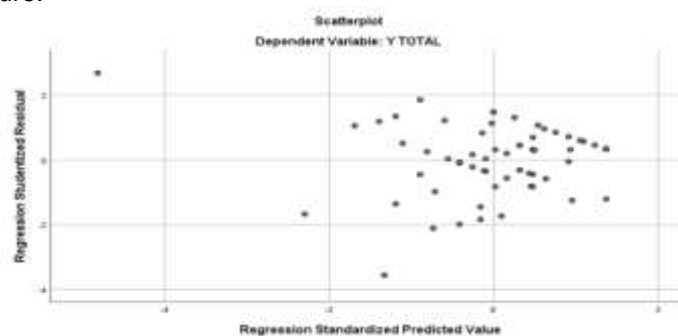


Figure 3. Heteroscedasticity Testing - Scatterplot

Based on Figure 3, it can be seen that the points spread randomly and are scattered above and below the number 0 on the Y axis so it can be concluded that heteroscedasticity does not occur.

Hypothesis Test

The data analysis technique in this study uses a statistical test tool in the form of multiple linear regression. The test results for multiple regression are

Table 5. Multiple Linear Regression Test Results

		Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.586	2.429		1.888	.063		
	X1 TOTAL	.303	.119	.333	2.553	.013	.514	1.945
	X2 TOTAL	.349	.125	.365	2.797	.007	.514	1.945

Source: Data processed with SPSS Vers 26.0

Based on the test results or data processing in table 4.9 in the unstandardized Coefficients column part B, the regression equation is obtained as follows:

Accounting information system quality (Y) = 4.586 + 0.303X1 + 0.349 X2 From the following equation it can be explained: The positive constant value of 4.586 shows the positive effect of the independent variables, namely Information technology (X1), and E-commerce (X2).

Simultaneous Hypothesis Test (F Test)

The statistical test f aims to determine all the independent variables included in the model have a joint influence on the dependent variable. The criteria used are if the value of F count > F table and probability > 0.05 then Ho is accepted otherwise if the probability < 0.05 then Ho is rejected.

Table 6. Regression Test Results (F Test)

ANOVA ^a					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	331.166	2	165.583	23.634	.000 ^b
Residual	469.405	67	7.006		
Total	800.571	69			

a. Dependent Variable: Y TOTAL
b. Predictors: (Constant), X2 TOTAL, X1 TOTAL

Source: Results of data processing with SPSS Vers 26.0

Based on Table 6, it can be seen that the calculated F value is obtained at 23.634 with a significance of 0.000, besides that the value of F count > F table so that it shows that the variables of information technology, E-commerce, together have a simultaneous effect on the quality of accounting information systems.

Partial Hypothesis Test (t test)

The t statistical test shows how far the influence of one independent variable individually in explaining the dependent variable can be seen at a significant level of 0.05 Can be seen in table 47:

Table 7. Partial Test Results (t Test)

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	4.586	2.429		1.888	.063
X1 TOTAL	.303	.119	.333	2.553	.013
X2 TOTAL	.349	.125	.365	2.797	.007

a. Dependent Variable: Y TOTAL

T count > t table or -t count < -t table means H0 is rejected and Ha is accepted.

T count < t table or -t count > -t table means H0 is accepted and Ha is rejected.

Based on the results of testing or data processing in table 4.11, the information technology variable (X1) obtained the result of t count of 1.888 greater than 0.05, the E-commerce variable (X2) obtained the result of t count of 2.553 with a significant level of less than 0.001 smaller than 0.05 has a significant value of.

Test Coefficient of Determination (R²)

To determine the percentage of the influence of the independent variables (Information technology and E-commerce) simultaneously on the dependent variable (Quality of accounting information systems). This shows how the percentage of variation in the dependent variable, the coefficient can be seen in the following table:

Table 8. Test Results of the Coefficient of Determination (R²)

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.643 ^a	.414	.396	2.647	2.060

a. Predictors: (Constant), X2 TOTAL, X1 TOTAL
b. Dependent Variable: Y TOTAL

Source: data processing with SPSS Vers. 26.0

Based on Table 8, the Adjusted R² is 0.396, which means that 39% of the quality of accounting information systems can be explained or described by the two independent variables (Information technology and E-commerce) while the remaining 61% is explained by other variables.

4. CONCLUSION

Based on the research results and data analysis described in chapter IV, the conclusions of the research results are as follows: The results of the study concluded that information technology and e-commerce have an influence on the quality of accounting information systems, especially on traders, this study also proves that the greater the level of a business, the higher the business performance achieved as measured by the level of sales, There are several external factors that influence, namely the emergence of new traders who open businesses through Gofood on a larger scale, sales difficulties due to lack of interest in making purchases at Gofood sales. The quality of the accounting information system is illustrated that Gofood traders as business actors use goods and services producers to buy and sell goods using the internet as a whole, the integrated elements are referred to as accounting information system components consisting of hardware, software, brainware, procedures, databases, and communication networks. An efficient telecommunications network that is easily accessible and of high quality or an integration of sub-systems that are interconnected and cooperate with each other to process transaction data related to financial matters into financial information that is useful for decision makers. In entrepreneurship, it is also necessary to support the accounting information system, the accounting information system is used to process manual data which will provide good information, in buying and selling transactions the accounting information system is used especially in processing which can be utilized by insider interests.

REFERENCE

- Alam, T. B. S. (2021). *Kepuasan Pengguna Sistem Informasi Akuntansi (Studi Pada Pt . Mahakarya Skripsi Diajukan Sebagai Salah Satu Syarat untuk Memperoleh Gelar Sarjana Di Fakultas Ekonomi Universitas Medan Area Oleh : Fakultas Ekonomi Universitas Medan Area Medan Kepuasan Pen.*
- Darma, J., & Sagala, G. H. (2020). Pengaruh Kualitas Sistem Informasi Akuntansi Terhadap Kualitas Informasi Akuntansi. *Jurnal Manajemen, Ekonomi Dan Akuntansi*, 4(1), 227–237.
- Hertati, L., Susanto, A., Zarkasyi, W., Suharman, H., Umar, H., Steet, D. U., & Steet, D. U. (2019). *Berimplikasi Terhadap Kualitas Informasi Akuntansi (Survey Pada Badan Usaha Milik Negara (BUMN) di Sumatera Selatan Indonesia) Peran akuntansi dalam*

- menghadapi masa disrupsi teknologi yang berkembang sangat pesat , sehingga detik demi detik menggantikan.* 3(1), 88–107.
- Lestari, A. D., & Asyik, N. F. (2015). Pengaruh Kualitas Sistem Informasi Dan Pengetahuan Akuntansi Terhadap Kualitas Informasi Akuntansi. *Jurnal Ilmu & Riset Akuntansi Vol. 4 No. 9 (2015), 4(9)*, 20.
- Margareta, I. P., & Setiawati, M. E. (2019). Pengaruh E-Commerce dan Penggunaan Sistem Informasi Akuntansi dalam Pengambilan Keputusan untuk Berwirausaha (Studi Kasus pada Perguruan Tinggi Swasta Di Wilayah Surakarta). *Jurnal Akuntansi*. <http://eprints.ums.ac.id/id/eprint/77404>
- Muslihudin;Oktafianto. (2016). *Pengaruh Teknologi Informasi terhadap Kualitas Sistem Informasi Akuntansi.* 10(2), 1091–1096.
- Nazalia, N., & Triyanto, D. N. (2018). Jurnal Akutansi, Audit Dan Sistem Informasi Akutansi (Jasa) Vol.1, No.4, Desember 2017. *Jurnal Akutansi, Audit Dan Sistem Informasi Akutansi (Jasa)*, 2(3), 93–104.
- Nugroho, F. A., Widiastoeti, H., & Sitohang, A. C. (2021). Pengaruh Teknologi Informasi dan Pengendalian Internal Terhadap Kualitas Sistem Informasi Akuntansi Manajemen pada AUTO2000 Kenjeran Surabaya. *Jurnal Sains Sosio Humaniora*, 5(1), 79–89. <https://doi.org/10.22437/jssh.v5i1.13453>
- Nurabiah, Pusparini, H., & Mariadi, Y. (2021). E-Commerce Dan Sistem Informasi Akuntansi Berwirausaha. *Jurnal Aplikasi Akuntansi*, 238–253.
- Pahlevi, V., Halimatusadiah, E., & Nurhayati, N. (2021). Pengaruh Penggunaan E-Commerce terhadap Kualitas Sistem Informasi Akuntansi. *Bandung Conference Series: Accountancy*, 1(1), 9–15. <https://doi.org/10.29313/bcsa.v1i1.27>
- Pramiswari, D. A. A., & Dharmadiaksa, I. B. (2017). Pengaruh E-Commerce Dan Penggunaan Sistem Informasi Akuntansi Dalam Pengambilan Keputusan Untuk Berwirausaha. *E-Jurnal Akuntansi (2017) 2017(1) 261-289 ISSN: 2302-8556*, 20, 261–289.
- Rapika, S. (2021). Pengaruh E-commerce dan Penggunaan Sistem Informasi Akuntansi Terhadap Pengambilan Keputusan Berwirausaha (Studi Kasus Pada Mahasiswa Jurusan Akuntansi Fakultas Ekonomi dan Bisnis Universitas Muhammadiyah Sumatera Utara). *Jurnal Akuntansi*.
- Utami, N. (2020). *Pengaruh Teknologi Informasi terhadap Kualitas Sistem Informasi Akuntansi dan Dampaknya terhadap Kualitas Informasi Akuntansi (Survei pada Unit Akuntansi Keuangan pada Bank BUMN di Kota Bandung).* 12–14. <http://elibrary.unikom.ac.id/id/eprint/3692>
- Veronica, M., & Pebriani, R. A. (2020). Pengaruh Faktor Fundamental Dan Makro Ekonomi Terhadap Harga Saham Pada Perusahaan Industri Properti Di Bursa Efek Indonesia. *Islamic Banking : Jurnal Pemikiran Dan Pengembangan Perbankan Syariah*, 6(1), 119–138. <https://doi.org/10.36908/isbank.v6i1.155>