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Effectivity Analysis of Cloud Computing-Based Point of Sales Applications as a Cash Receipts Information System for MSMEs in Pekanbaru

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Abstract

This study aims to test and determine the effectiveness of using a cloud computing- based point of sales (POS) application as a cash receipt information system for Micro, Small, and Medium Enterprises (MSMEs) in Pekanbaru. The method of measuring the effectiveness of this study is the USE Questionnaire consisting of usefulness, ease of use and ease of learning on the satisfaction of users of cloud computing-based POS applications . The sample used in this study was 116 MSMEs. Data collection was carried out directly to MSMEs via Google Forms. The analysis method used is descriptive analysis and regression analysis. The results of the study indicate that ease of learning does not have a positive and significant effect on the satisfaction of users of cloud computing-based POS applications. Usefulness has a positive and significant effect on the satisfaction of users of cloud computing-based POS applications. Ease of use has a positive and significant effect on the satisfaction of users of cloud computing-based POS applications.

Keywords: USE Questionnaire, usefulness, ease of use, ease of learning and satisfaction.

INTRODUCTION

Accounting Information System or AIS in a business organization is part of the company's infrastructure that is found in supporting activities in the chain of business organizations. Although only as a support, if AIS is not practiced in a business organization properly, the decision-making process will not run smoothly. AIS plays an important role in business organizations, for example, it can increase efficiency, improve quality and reduce product or service costs, improve decision-making, and so on. Decision-making has an important essence for the progress of an organization, especially because the future of an organization is largely determined by current decision-making (Pasolong, 2023). In the context of decision-making, the benefits of AIS are very important, one of which is that AIS can analyze sales data and use the information generated to drive growth of sales transactions. AIS in a business organization is influenced by several factors, namely the development of information technology, business strategy, and organizational culture (Pamungkas, 2021). The need for accurate information at the right time drives the development of information technology even faster. The development of information technology not only touches large-scale business organizations, but also Micro, Small, and Medium Enterprises (MSMEs)

MSMEs in Indonesia are one of the business sectors that support the national economy. Data from the Ministry of Cooperatives and MSMEs in 2022 stated that the contribution of MSMEs has reached 61% of the total national GDP. Seeing the potential for MSME growth which is quite extensive, the Indonesian Government has recently continued to strive for digital transformation of the MSME sector. These efforts continue to be executed because Indonesia's digital economy is estimated to reach IDR 4,531 trillion in 2030. Not only that, as of April 2022, there were already 19 million MSMEs that had successfully carried out digital onboarding . The target set by the Indonesian Government is 30 million MSMEs that are onboarding digitally by 2024. The Indonesian Government's efforts to intensify this digital transformation aim to encourage the resilience of MSMEs to become stronger amidst the waves of digital disruption that are increasingly shaking every

year. In addition, this transformation also provides great potential for the development of MSMEs so that they can later be competitive towards the global market (Institute for Development of Economics and Finance [INDEF], 2024). The digital transformation of MSMEs for the Indonesian Government is a holistic effort in which the Indonesian Government also wants to build a digital ecosystem that encompasses all business processes from upstream to downstream (Kementerian Koperasi dan UKM, 2022). This means that the Indonesian Government is determined to digitize all MSME business processes, not just in one business process (e.g marketing process only).

In general, the use of information technology for MSMEs in Indonesia is only 33.6% (INDEF, 2023). The large number of MSMEs that have not been digitized is influenced by many factors, some of which are anxiety about using computers, security reasons for using applications, lack of financial inclusion for MSMEs and others. The use of information technology in business organizations cannot be ignored. The increasingly advanced technological environment provides business organizations with the opportunity to improve their performance so that a mutually beneficial relationship is created between information technology and company performance.(Fauzi et al., 2022)

Based on the sector, 63% of MSMEs in Indonesia are businesses in the trade and retail sector (Asian Development Bank [ADB], 2021). That means there are around 41 million MSMEs operating in that sector. Seeing these figures, the potential of the trade and retail sector in MSMEs is very large. One of the efforts to grow businesses carried out by MSMEs in the trade and retail sector that is currently popular in society is the digitalization of the sales process through the implementation of point of sales applications (digital cashiers) in the daily operations of MSMEs.

Point of sales (POS) application is a digital cashier system that is useful for providing real-time, accurate, and timely business operational reports. The use of this application has been developing for quite a long time. However, along with the development of cloud computing technology in 2008, the POS application also became one of the applications that can be developed through cloud computing where the financial data of business organizations is stored through the cloud. Cloud computing-based point of sales is a technology that is integrated with cloud computing that makes it easy for MSMEs to increase sales, payment methods, stock monitoring and report analysis (Prihatiningtias & Wardhani, 2021). The existence of this application is a fairly common phenomenon found in the business world, especially MSMEs and particularly in the sector of trade and retail.

One of the advantage offered by this application is that it can ensure that all reports shown are presented accurately, balanced, and easy to update anywhere and anytime. The presence of the POS application is considered to facilitate a number of tasks as it can be integrated with various systems, such as accounting, stock management, even to employee management. Cloud computing-based POS applications are accessible even to MSMEs. Users do not have to pay a large fee to be able to take advantage of this sophisticated technology (Ilma & Muid, 2023).

Despite the myriad of advantages it offers, there are still many business who have not used this application to its full potential. Limited skills and competencies regarding digital literacy are factors that cause these obstacles. However, this can be overcome through cooperation between various stakeholders ranging from the government, private sector and of course the community itself. In Riau Province itself, the development of MSMEs has been and continues to be pursued by many stakeholders, including the government. Riau is one of the provinces in Indonesia with the second largest contributor to the 2023 GRDP in the Sumatra region with a total GRDP of 2023 (according to current prices) is IDR 1,026.47 trillion with 4.21 GRDP growth and is ranked 6th nationally (Badan Pusat Statistik [BPS], 2024). This figure continues to be driven by the Riau Provincial Government through a series of efforts, including the development and empowerment of MSMEs (Pemerintah Provinsi Riau, 2023). Not only that, MSME development efforts are also carried out through cooperation between the Riau Provincial Government and various stakeholders ranging from local, central and private governments. These efforts are manifested through 3 strategies, namely (1) Accelerating MSME Exports through trade promotion and business matching, (2) MSMEs Go Digital through the implementation of digital payments and (3) Development of Strategic Food Clusters through digital farming and downstreaming (Pemerintah Provinsi Riau, 2023).

The capital of Riau Province, Pekanbaru, is in the top position in terms of the number of MSMEs. According to data from the Riau's Department of Industry, Trade, Cooperatives and MSMEs, the number of MSMEs in Pekanbaru for 2023 is around 49,398 MSMEs. As the provincial capital and as the area with the largest population in Riau Province, it is not concerning that the number of MSMEs in Pekanbaru is large. The following is data on the number and growth of MSMEs in Riau Province for the last 5 years.

Table 1 Number of MSMEs in Riau Province 2018-2023

Year	Amount	Growth
2018	126.127	
2019	131,755	4.46%
2020	137,073	4.03%
2021	282,054	105.76%
2022	284,461	0.85%
2023	284,932	0.16%

Source: Department of Industry, Trade, Cooperatives and SMEs of Riau Province (2024)

The number of MSMEs in Riau Province as of 2023 is 284,932 MSMEs. The most significant growth in the number of MSMEs occurred between 2020 and 2021, where there was a growth in the number of MSMEs of 105.79%. Meanwhile, in Pekanbaru itself, the number of MSMEs in 2023 was 49,398 MSMEs. In the Riau community, especially in Pekanbaru, recently the use of point of sales applications (digital cashiers) by MSME actors has been widespread along with the increasing number of MSME actors. This is due to the many advantages offered by the application. Currently, the point of sales applications available to the public are quite diverse. These applications can be easily downloaded by prospective customers through the App Store or Play Store channels.

Despite the large number of POS application service providers, the government has not yet made any moves to empower the trend that has developed in recent years. In increasing the digitalization of MSMEs, the Riau Provincial Government is currently only focusing on efforts to use the SIAPIK application and efforts to use QRIS which were indeed created by the Central Government through Bank Indonesia (BI). The disparity of the movements made by the government with the trend of using point of sales applications has made researchers interested in examining the level of satisfaction of MSME actors who use cloud computing-based point of sales applications . The importance of this research can be an evaluation material for the government to be able to pay attention to conditions that occur in its real condition because it would be better if the government empowered things that had been implemented by the community itself rather than introducing other applications.

This study uses a reference to previous research conducted by Hariyanto et al. (2020) showing that ease of learning does not affect satisfaction . This result is in line with research conducted by Pirie & Tambotoh (2022), Fadhilah et al. (2022), Amelia & Novita (2019), Nofirza et al. (2019) and Lengkong et al. (2021) where all the research did not show any influence between ease of learning and satisfaction . However, research from Nurazizah et al. (2021), Putra & Tanamal (2020) and Amanda (2022) showed different results where in the study, usefulness, ease of use and ease of learning have an effect on satisfaction. Due to the inconsistency of the results of previous studies based on the description above, the researcher wants to examine whether there is an influence between usefulness, ease of use and ease of learning on the effectiveness of using POS applications in MSMEs.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The Influence of Usefulness on Satisfaction Cloud Computing-Based POS Application Users in MSMEs

Usefulness refers to the extent to which a system or application is able to provide benefits and help users achieve their expected goals (Mufid, 2023). The use of cloud computing-based POS applications is believed to facilitate various jobs since it can be integrated with various systems that a business organization has or will have. A cloud computing-based digital cashier system provides MSMEs with

a competitive advantage to be able to access and analyze important data for decision making (Ilma & Muid, 2023).

With the advancement of technology, all business processes in business organizations become easier and more efficient. In the TAM model, there is a construct of perceived usefulness, which has an impact on the performance of the task being performed. The study Hariyanto et al. (2020) found a positive influence between usefulness and user satisfaction of information systems. The positive impact was also stated by Fadhilah et al. (2022) who stated that there is a positive relationship between usefulness and user satisfaction of information systems. Based on this explanation, the following hypothesis formulation was obtained:

H1: Usefulness has a positive effect on satisfaction of users of cloud computing-based POS applications in MSMEs.

The Influence of Ease of Use on User Satisfaction of Cloud Computing-Based POS Applications in MSMEs

Ease of use relates to how easy a system or application can be used by users (Mufid, 2023). An information system is designed to provide benefits to its users. These benefits will not be achieved if users have difficulty operating the information system they utilize for their tasks. When users feel the ease of using an information system, then users will be faster and more effective in completing work and organizational goals will be easier to achieve (Prawisesa, 2021). According to one of the constructs in TAM, the perception of ease has an impact on the use of an information system which will later provide benefits from the aspects of effectiveness and security in conducting transactions. This can increase the effectiveness and efficiency of transactions in MSMEs which will have a good impact on the satisfaction of users of an information system.

In a study conducted by Fadhilah et al. (2022), ease of use has a positive influence on user satisfaction of information systems. Based on this explanation, the following hypothesis is formulated:

H2 : Ease of use has a positive effect on user satisfaction of cloud computing-based POS applications in MSMEs.

The Influence of Ease of Learning on User Satisfaction of Cloud Computing-Based POS Applications in MSMEs

Ease of learning refers to how quickly a user is able to learn a system and become proficient in using it (Lund, 2001). The longer a user learns a system, the more resources are spent and opportunities are missed. Using a cloud computing-based POS application that is easy to learn can make users feel helped because users do not need comprehensive skills and ultimately can reduce individual effort (time) to do a job. In the TAM model, the perception of ease has an impact on the use of an information system and can then increase the performance of a business organization due to the high level of effectiveness.

Research conducted by Nurazizah et al. (2021) states that ease of learning has an effect on satisfaction in using an information system. However, a different thing is stated by Pirie & Tambotoh (2022) who mentioned that ease of learning has no positive effect on satisfaction in using an information system. Based on this explanation, the following hypothesis formulation is obtained:

H3 : Ease of learning has a positive effect on user satisfaction of cloud computing-based POS applications in MSMEs.

In the Technology Acceptance Model (TAM) by Davis (1989), the perception of ease and usefulness has an impact on the use of information systems which ultimately provides benefits from the effectiveness aspect. This effectiveness can improve the performance of business organizations. Cloud computing-based POS applications provide convenience for MSMEs to increase sales, payment methods, stock monitoring and report analysis (Prihatiningtias & Wardhani, 2021). To measure the effectiveness of using an information system, many measurement methods can be selected. One of these measurement methods is the USE questionnaire which contains four dimensions, namely usefulness, ease of use, ease of learning and satisfaction.

Based on the description above, the research framework to describe the relationship between the variables usefulness (X1), ease of use (X2) and ease of learning (X3) which influences the satisfaction (Y) of users of cloud computing- based POS applications in MSMEs is attached as follows.

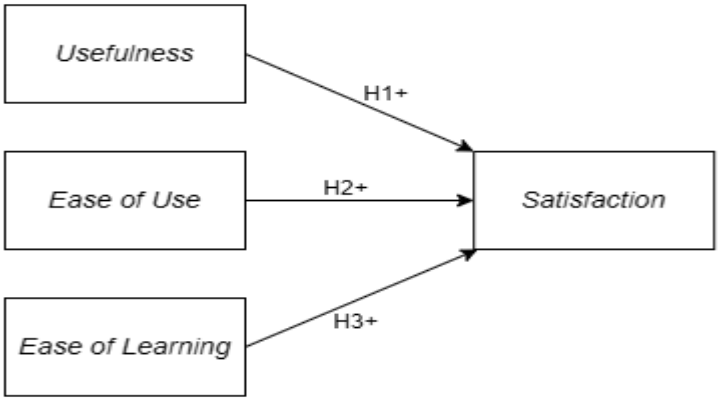

Figure 1. Research Framework

METHODS

Population and Sample

This study uses the population of MSME actors in Pekanbaru based on the latest data, namely data from 2023. The population of MSMEs registered in Pekanbaru is 49,398 MSMEs. The research sample was taken using a non-random sampling technique with the method chosen being purposive sampling. The criteria that must be met by respondents are as follows.

1. Pekanbaru's MSMEs registered within the Riau's Department of Industry, Trade, Cooperatives and SMEs and the Pekanbaru's Department of Cooperatives and SMEs.
2. The MSMEs are currently using or have used cloud computing-based point of sales applications as a cash receipts information system in their business operations.

Data Sources and Data Collection Methods

This study uses primary data obtained directly from questionnaires distributed to respondents. The primary data used is in the form of questionnaires distributed directly through Google Forms and distributed to MSME actors.

Operational Definition and Measurement of Variables

This study examines the influence of the dependent variable, namely user satisfaction of cloud computing-based POS applications towards the independent variables of this study, namely usefulness, ease of use and ease of learning.

1. Dependent Variable
   The dependent variable in this study is user satisfaction of cloud computing-based POS applications.

Table 2 Operational Definition of Dependent Variables

Variables	Definition	Indicator	Statement	References
Satisfaction	Satisfaction is the response given by a user to the information system (Mufid, 2023).	SF1	I am satisfied with this application	Lund (2001)
		SF2	I would recommend this app to my colleagues	
		SF3	This app is fun to use	
		SF4	This app works as I wanted it to.	
		SF5	I think this app is impressive	
		SF6	I feel like I should acquire/use this app.	
		SF7	I think this application is comfortable to use	

2. Independent Variables
   The independent variables in this study consist of:

Table 3 Operational Definition of Independent Variables

No.	Variables	Definition	Indicator	Statement	References
1.	Usefulness	Usefulness refers to how effective the system is in providing the functions needed by users and helping them achieve their desired outcomes (Lund, 2001).	US1	I think this app helps me to be more effective	Lund (2001)
			US2	I think this app helps me to be more productive	
			US3	I think this application is very useful (beneficial) for me	
			US4	I think this application helps me with the tasks I do.	
			US5	I think this app makes the things I want to achieve easier to do.	
			US6	I think this app saves me time when I use it.	
			US7	I think this application suits my needs	
			US8	I think this app works as I expected.	
2.	Ease of Use	Ease of Use relates to the level of simplicity and intuitiveness in using the system (Lund, 2001)	EU1	I think this application is easy to use	Lund (2001)
			EU2	I think this application is practical to use	
			EU3	I think this application is easy to understand for myself	
			EU4	I think this application has practical operating steps.	
			EU5	I think this application is flexible	
			EU6	There is no need to do much when using this application.	
			EU7	I can use this application without written instructions.	
			EU8	I did not find any inconsistencies during my use of this application.	
			EU9	People who rarely or regularly use this application will love this application when using it.	
			EU10	I can easily fix the situation if there is an error in using this application	
			EU11	I can use this app successfully every time I use it.	
3.	Ease of Learning	Ease of Learning refers to how quickly users can learn the system and become proficient in using it.	EL1	I can learn to use this application quickly.	Lund (2001)
			EL2	I easily remember how to use this application.	

		(Lund, 2001)	EL3	I think this application is easy to learn how to use.	
			EL4	I quickly became proficient with this app.	

RESULTS

This study deployed a survey method, and the questionnaires were distributed online. There were 120 questionnaires disributed to the respondents, however, only 116 questionnaires met the established criteria. This number has met the minimum sample size requirement of more than 30 and less than 500 and this requirement is based on Roscoe's principle (1975).

Respondent Characteristics

Table 4 Characteristics and Information related to Respondents

Information from Respondents	Category	Number of Respondents	Percentage
Business Age	< 5 years	101	87.07%
	5 -10 years	12	10.34%
	10-15 years	1	0.86%
	> 15 years	2	1.73%
Types of Point of Sales Used	Moka POS	13	11.21%
	Majoo	33	28.45%
	Olsera	11	9.48%
	Pawoon	0	0%
	Cashier	6	6%
	Other brands	53	45.59%
Type of Business	Culinary	116	100%
Level of Education	Elementary School/Equivalent	0	0%
	Junior High School/Equivalent	0	0%
	High School/Equivalent	59	50.86%
	Diploma 3/Diploma 4/Bachelor's Degree	56	48.28%
	Master's Degree/Doctoral Degree	1	0.86%
	Other	0	0%
Average Income per Year	IDR0-IDR2,000,000,000	107	92.94%
	IDR 2,000,000,000-IDR 15,000,000,000	9	7.76%

Instrument Test Results

Validity Test Results

Table 5 Validity Test Results

Question Items	R Count	R Table	Results
X1.1	0.708	0.1824	Valid
X1.2	0.741	0.1824	Valid
X1.3	0.856	0.1824	Valid
X1.4	0.807	0.1824	Valid
X1.5	0.823	0.1824	Valid
X1.6	0.774	0.1824	Valid
X1.7	0.818	0.1824	Valid
X1.8	0.751	0.1824	Valid
X2.1	0.768	0.1824	Valid
X2.2	0.796	0.1824	Valid
X2.3	0.678	0.1824	Valid
X2.4	0.755	0.1824	Valid

X2.5	0.699	0.1824	Valid
X2.6	0.694	0.1824	Valid
X2.7	0.584	0.1824	Valid
X2.8	0.684	0.1824	Valid
X2.9	0.758	0.1824	Valid
X2.10	0.744	0.1824	Valid
X2.11	0.808	0.1824	Valid
X3.1	0.879	0.1824	Valid
X3.2	0.849	0.1824	Valid
X3.3	0.899	0.1824	Valid
X3.4	0.817	0.1824	Valid
Y1.1	0.806	0.1824	Valid
Y1.2	0.829	0.1824	Valid
Y1.3	0.834	0.1824	Valid
Y1.4	0.856	0.1824	Valid
Y1.5	0.848	0.1824	Valid
Y1.6	0.887	0.1824	Valid
Y1.7	0.867	0.1824	Valid

From the table above, tt is known that all calculated R values are > from the R table value which is 0.1824. It can be concluded that all research questions are valid.

Reliability Test Results

Table 6 Reliability Test Results

Variables	Cronbach's Alpha	Criteria	Results
Usefulness	0.910	0.6	Reliable
Ease of Use	0.907	0.6	Reliable
Ease of Learning	0.882	0.6	Reliable
Satisfaction	0.933	0.6	Reliable

The four research variables consisting of usefulness, ease of use, ease of learning and satisfaction have Cronbach's Alpha values of more than 0.6. Therefore, all of these research variables are reliable.

Classical Assumption Test Results

Normality Test Results

Table 7 Normality Test Results

		Unstandardized Residual
N		116
Normal Parameters [a,b]	Mean	,0000000
	Std. Deviation	2.21216422
Most Extreme Differences	Absolute	,062
	Positive	,062
	Negative	-,051
Test Statistics		,062
Asymp. Sig. (2-tailed)		,200 [c,d]

The Asymp. Sig. (2- *tailed*) value of this study is 0.200. Because this value is greater when compared to the significance value of 0.05. Therefore, the data distribution is normally distributed.

Multicollinearity Test Results

Table 8 Multicollinearity Test Results

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Usefulness	,558	1,791
	Ease of Use	,334	2,992
	Ease of Learning	,404	2,476

The VIF and tolerance values of usefulness are 0.558 and 1.791, the VIF values of tolerance of ease of use are 0.334 and 2.992 and the VIF and tolerance values of ease of learning are 0.404 and 2.476. From these calculations, because the values of all VIFs are <10 and the tolerance value is > 0.10, it can be stated that there is no multicollinearity in this study.

Heteroscedasticity Test Results with *Scatterplot*

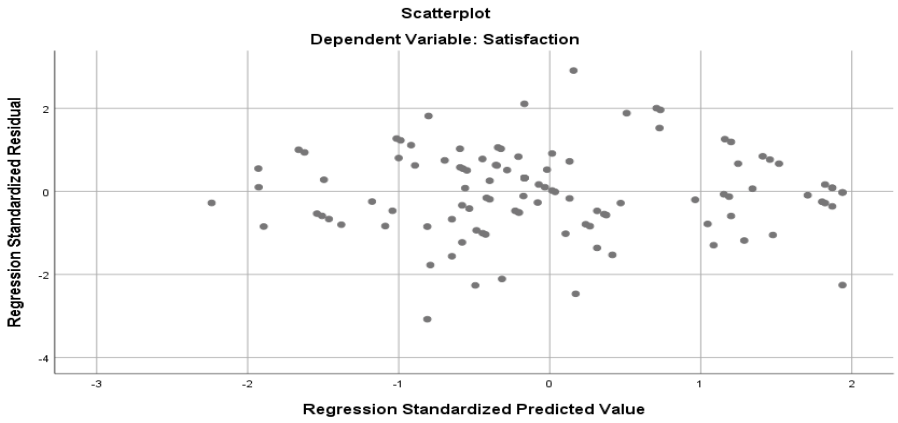

Figure 2 *Scatterplot* of Heteroscedasticity Test Results

From the *scatterplot*, it can be seen that the *scatterplot* shows observation points that are spread above and below the Y-axis and a random pattern. This shows that there is no heteroscedasticity symptom in the research data.

Hypothesis Testing

Multiple Linear Regression Test Results

Table 9 Multiple Linear Regression Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3,840	1,938		-1,982	,050
	Usefulness	,250	,072	,224	3,444	,001
	Ease of Use	,426	,062	,573	6,828	,000
	Ease of Learning	,276	,143	,147	1,929	,056
a. Dependent Variable: Satisfaction						

The multiple linear regression equation of this study is $Y = -3{,}840 + 0{,}25X_1 + 0{,}426X_2 + 0{,}276X_3$. The interpretation that can be explained in the equation is:

a. The constant value is -3.840. This shows that if the variables usefulness (X1), ease of use (X2) and ease of learning (X3) have a value of 0, then the Y value is negative at -3.840.
b. The regression coefficient value of the usefulness variable (X1) is at 0.250, which means that if there is an increase in the value of the usefulness variable by one time, there will also be an increase in satisfaction by 0.250, assuming that other variables remain constant.
c. The regression coefficient value of the ease of use variable (X2) is 0.426, which means that if there is an increase in the value of the ease of use variable by one time, there will also be an increase in satisfaction by 0.426, assuming that other variables remain constant.
d. The regression coefficient value of the ease of learning variable (X3) shows a value of 0.276. This means that if there is an increase in the value of the ease of use variable by one time, there will also be an increase in satisfaction by 0.276 assuming other variables remain constant.

T-test

Table 10 T-Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3,840	1,938		-1,982	,050
	Usefulness	,250	,072	,224	3,444	,001
	Ease of Use	,426	,062	,573	6,828	,000
	Ease of Learning	,276	,143	,147	1,929	,056
a. Dependent Variable: Satisfaction						

The significance of usefulness and ease of use shows a figure of <0.05, so the two of those research variables have an influence on the dependent variable. However, the significance of ease of learning shows the figure of >0.05 and it means that ease of learning does not have an influence on the dependent variable.

F-Test

Table 11 F-Test Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1569,987	3	523,329	104,150	,000 [b]
	Residual	562,772	112	5,025		
	Total	2132,759	115			
a. Dependent Variable: Satisfaction						
b. Predictors: (Constant), Ease of Learning, Usefulness, Ease of Use						

From the table above, it is stated that the *Sig. value* is 0.000 which is smaller than 0.05. This shows that the regression model of this study has been appropriate (fit) with the existing data.

Determination Coefficient Test (R^2)

Table 12 Results of the Determination Coefficient Test (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,858 [a]	,736	,729	2,242
a. Predictors: (Constant), Ease of Learning, Usefulness, Ease of Use				

Adjusted R Square value of this study is 0.729. This figure implies that 72.9% of changes in the satisfaction variable (Y) can be explained by the variables usefulness, ease of use and ease of learning. Meanwhile, the remaining 27.1% is explained by other variables not examined in this study.

Usefulness has a positive effect on user satisfaction of POS applications in MSMEs

Hypothesis testing in table 9 shows that the coefficient value of usefulness on user satisfaction of POS applications in MSMEs is 0.001 which is smaller than 0.05 (α = 5%). From these results, it can be concluded that usefulness has a positive and significant effect on user satisfaction of POS applications in MSMEs and H1 is supported by the data.

Ease of Use has a positive effect on user satisfaction of POS applications in MSMEs

From the hypothesis testing shown in table 9, it can be seen that the coefficient value of ease of use on satisfaction is 0.000 which is smaller than 0.05 (α = 5%). Therefore, it can be concluded that ease of use has a positive and significant effect on the satisfaction of POS application users in MSMEs and this result also means that H2 is supported by the data.

Ease of Learning does not have a positive effect on user satisfaction of POS applications in MSMEs

The results of data processing shown in table 9 describe that the coefficient value of ease of learning on satisfaction is 0.056 which is greater than 0.05 (α = 5%). This figure illustrates that ease of learning does not have a positive and significant effect on user satisfaction of POS applications in MSMEs and shows that H3 is not supported by the data.

DISCUSSION

The results show that usefulness has a positive and significant effect on user satisfaction of cloud computing-based POS applications in MSMEs. The results of this study are similar to the research conducted by Hariyanto et al. (2020) and Nofirza et al. (2019)which concluded that there is a significant relationship between usefulness and satisfaction. The results of these two previous studies explain that the usefulness of an application greatly influences the level of satisfaction of users who use the application. MSMEs which have implemented cloud computing-based POS applications have felt the usefulness of these applications. The result of the survey also indicates that MSMEs finds it easy to do their daily tasks. They feel that POS applications have made them becoming more productive, more easy to finish tasks, and more time-saving that eventually made them sensing the usefulness of these POS applications.

The results also found that ease of use has a positive and significant effect on user satisfaction of cloud computing-based POS applications in MSMEs. This statement is the same as previous research conducted by Fadhilah et al. (2022), Amanda (2022), Lengkong et al (2021) and Nurazizah et al. (2021) which stated that there is a positive relationship between ease of use and satisfaction of using an application. When using the POS applications, the MSMEs in Pekanbaru has been equipped with the basic competence of technology so there are no significant difficulties found by the owner, cashier, or other staff of the MSMEs. From the survey, it can be seen that the majority of the respondent finds

it easy to understand the operations of POS applications. These applications also have such a practical operating procedure and it is easy for them to get back from any errors appearing which eventually makes them easy to operate these applications without a written instruction.

For ease of learning, this study found that it does not influence user satisfaction of cloud computing-based POS applications in MSMEs. Several studies that have results relevant to the results of this study are studies conducted by Pirie & Tambotoh (2022), Fadhilah et al. (2022), Lengkong et al. (2021), Hariyanto et al. (2020), Nofirza et al. (2019) and Amelia & Novita (2019) which stated that there was no significant relationship between ease of learning and user satisfaction of an application. The survey of this research found that the MSMEs implementing POS applications took quite some time to learn to operate the applications they use because not every POS applications have an easy operation manual. Educational background of the user of POS applications could be one of the factor causing this problem. Individuals with a higher educational degree tend to have a more complex way of thinking that makes them easy to adapt with the complexity of the POS applications. It is also possible that the struggle to learn about these applications comes from the bugs appearing on the application. However, the results of this study are not in line with the study conducted by Amanda (2022), Putra & Tanamal (2020) and Nurazizah et al. (2021) which found that there was a significant relationship between ease of learning and user satisfaction of an application. From these three previous studies, ease of learning has a significant effect because the samples used in these three studies were mostly samples that were already familiar with digital systems (aged approximately 19-40 years).

CONCLUSION

Usefulness has a positive effect on user satisfaction of POS applications in MSMEs. Ease of Use has a positive effect on user satisfaction of POS applications in MSMEs. Ease of Learning does not have a positive effect on user satisfaction of POS applications in MSMEs. Theoritically, this research could be a referrence and consideration towards the topic of utilizing and development of the similar information technology, particularly regarding POS applications. On the practical aspect, this research provides new suggestion and insight towards these particular stakeholders:

a. MSMEs
   MSME could use the result of this research to enhance the effectivity of implementing cloud computing-based POS applications, which is by improving the skills and digital literacy of the people who authorized to operate POS application, or even the owner of the MSME itself.
b. Government
   This research could be an insight towards the government so that the government will add more effort to enhance the digital literacy of MSMEs that emphasize on the utilizing of POS applications.
c. POS Application Vendors
   Vendors of POS Applications could use this research to support any effort that improves the usability of their products.

Research Limitations

1. There are MSMEs which are not willing to be the part of the respondent and give their response to the questionnaire.
2. Collection process of the response that exceed the expected duration.
3. This research is a questionnaire-based research which make it possible to the respondents to not provide the real answer that is happening in the real situation of the MSME they handle.

Suggestions for Future Studies

1. For MSMEs of Pekanbaru, it is essential to acknowledge that any hurdles when familiarizing with a POS applications require teamwork between the MSME management

and the staff who utilize POS applications so eventually improve the operation of the application.

2. For the Government of the Province of Riau and the City of Pekanbaru, it is advisable to elevate the skills of the people who work or will work with information technology. Additionally, it is better for the government to support the utilizing of POS applications that has been widely implemented by MSMEs.
3. For the POS Application Vendor, it is suggestable to keep developing applications that fit with the targeted market and to open up ears towards critics or insights from the user of the application.
4. For future researcher, it is advisable to use another measurement method or to add another variable which has not been included in this research to better widen the scope of the research.

REFERENCES

Amanda, N. (2022). *Analisis Usability Aplikasi Bank Jambi Mobile Menggunakan Metode Usability Testing Dan USE Questionnaire* [Published Undergraduate Thesis]. Universitas Dinamika Bangsa.

Amelia, L., & Novita, D. (2019). Analisis Usability Aplikasi Pengisian KRS Online STMIK XYZ Palembang Menggunakan USE Questionnaire. *Jurnal Informasi Dan Komputer*, *7*(1), 17–28. Https://Doi.Org/Https://Doi.Org/10.35959/Jik.V7i1.119

Asian Development Bank [ADB]. (2021). *Asia Small And Medium-Sized Enterprise 2021: Volume I–Country And Regional Reviews*. Https://Www.Adb.Org/Publications/Asia-Sme-Monitor-2021-Country-Regional-Reviews

Badan Pusat Statistik [BPS]. (2024). *Pertumbuhan Ekonomi Riau Triwulan IV-2023*.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, *13*(3), 319–340. Https://Doi.Org/10.2307/249008

Fadhilah, F., Meuthia, R. F., & Ferdawati. (2022). Measuring Usability Of Academic Information System Using USE Questionnaire : Case Study Of Padang State Polytechnic. *Malaysian Journal Of Business And Economics (MJBE)*, *9*(2), 79–91. Https://Doi.Org/10.51200/Mjbe.V9i2.3932

Fauzi, E., Sinatrya, M. V., Ramdhani, N. D., Ramadhan, R., & Safari, Z. M. R. (2022). Pengaruh Kemajuan Teknologi Informasi Terhadap Perkembangan Akuntansi. *Jurnal Riset Pendidikan Ekonomi*, *7*(2), 189–197. Https://Ejournal.Unikama.Ac.Id/Index.Php/Jrpe/Article/View/6877/3642

Hariyanto, D., Triyono, M. B., & Köhler, T. (2020). Usability Evaluation Of Personalized Adaptive E-Learning System Using USE Questionnaire. *Knowledge Management And E-Learning*, *12*(1), 85–105. Https://Doi.Org/10.34105/J.Kmel.2020.12.005

Ilma, R., & Muid, D. (2023). Analisis Faktor-Faktor Yang Memengaruhi Minat Pemanfaatan Dan Penggunaan Aplikasi Moka POS (Point Of Sales) Berbasis Cloud Pada UMKM Di Kota Semarang Dengan Menggunakan Model Unified Theory Of Acceptance

And Use Of Technology (UTAUT). *Diponegoro Journal Of Accounting*, *12*(4), 1–15. Https://Ejournal3.Undip.Ac.Id/Index.Php/Accounting/Article/View/41610

Institute For Development Of Economics And Finance [INDEF]. (2024, Januari 25). *Laporan Final: Peran Platform Digital Terhadap Pengembangan UMKM Di Indonesia*. Https://Indef.Or.Id/Transformasi-Umkm-Digital/

Kementerian Koperasi Dan UKM. (2022, Mei 28). *Menkopukm: Transformasi Digital Dorong Daya Tahan UMKM Lebih Kuat. Dalam Kementerian Koperasi Dan UKM. Kementerian Koperasi Dan UKM*. Https://Www.Kemenkopukm.Go.Id/Read/Menkopukm-Transformasi-Digital-Dorong-Daya-Tahan-Umkm-Lebih-Kuat

Lengkong, O., Tumewu, M. D., & Lumintang, N. T. T. (2021). Analisis Usability Pada Aplikasi M-Commerce Tokopedia Terhadap Kepuasan Pengguna Menggunakan USE (Usefulness, Satisfaction, Ease Of Use) Questionnaire. *Cogito Smart Journal*, *7*(1), 182–192. Https://Cogito.Unklab.Ac.Id/Index.Php/Cogito/Article/View/311/185

Lund, A. M. (2001). Measuring Usability With The USE Questionnaire. *Usability Interface*, *8*(2), 3–6.

Mufid, A. A. (2023). *Analisis Usability Pada Aplikasi Usapp Menggunakan Metode USE Questionnaire* [Published Undergraduate Thesis]. Universitas Siliwangi.

Nofirza, Candra, R. M., Putri, D. P., Anggraini, W., & Harpito. (2019). Analisis User Experience Dan Usability Terhadap Sistem Pembelajaran Berbasis Teknologi Informasi. *Jurnal Sistem Informasi*, *11*(2), 1734–1745. Http://Ejournal.Unsri.Ac.Id/Index.Php/Jsi/Index

Nurazizah, E. O., Ermanita, & Astriratma, R. (2021). Analisis Pengukuran Usability Menggunakan Metode USE Questionnaire Pada Aplikasi Shopee Indonesia. *Seminar Nasional Mahasiswa Ilmu Komputer Dan Aplikasinya (SENAMIKA)*, 688–697. Https://Conference.Upnvj.Ac.Id/Index.Php/Senamika/Article/View/1629/1391

Pamungkas, S. (2021). Pengantar Sistem Informasi Akuntansi. In *Universitas Islam Indonesia*. Universitas Islam Indonesia.

Pasolong, H. (2023). *Teori Pengambilan Keputusan*. ALFABETA.

Pemerintah Provinsi Riau. (2023, November 30). *Riau Terus Berkomitmen Tingkatkan Pengembangan UMKM*. Https://Mediacenter.Riau.Go.Id/Read/82569/Pemprov-Riau-Terus-Berkomitmen-Tingkatkan-Pen.Html

Pirie, C. R., & Tambotoh, J. J. C. (2022). Analisis Kebergunaan Menggunakan Usefulness, Satisfaction, And Ease-Of-Use Questionnaire Pada Perbankan Digital. *Jurnal Sistemasi*, *12*(1), 154–165. Https://Sistemasi.Ftik.Unisi.Ac.Id/Index.Php/Stmsi/Article/View/2396/527

Prawisesa, A. O. (2021). *Pengukuran Tingkat Keberhasilan E-SPTPD Di Kota Yogyakarta Dengan Pendekatan Delone And Mclean IS Success Model Dan Technology Acceptance Model* [Published Undergraduate Thesis].Universitas Islam Indonesia. Https://Dspace.Uii.Ac.Id/Bitstream/Handle/123456789/30959/17312297%20Anisha%20Oktania%20Prawisesa.Pdf?Sequence=1&Isallowed=Y

Prihatiningtias, Y. W., & Wardhani, M. R. (2021). Understanding The Effect Of Sustained Use Of Cloud-Based Point Of Sales On Smes Performance During Covid-19 Pandemic. *The Indonesian Accounting Review*, *11*(1), 33–46. Https://Doi.Org/10.14414/Tiar.V11i1.2300

Putra, Y. S. M., & Tanamal, R. (2020). Analisis Usability Menggunakan Metode USE Questionnaire Pada Website Ciputra Enterprise System. *Teknika*, *9*(1), 58–65. Https://Doi.Org/10.34148/Teknika.V9i1.267

Roscoe, J. T. (1975). *Fundamental Research Statistic For The Behavioral Sciences* (2 ed.). Holt Rinehart and Winston.