MEASURING APPLICATION AUGMENTED REALITY TO INCREASE MSME PERFORMANCE USING TECHNOLOGY ACCEPTANCE MODEL

by Qristin Violinda

Submission date: 06-Dec-2022 11:26AM (UTC+0700)
Submission ID: 1972852250
File name: measuring_aplication.pdf (733.63K)
Word count: 6794
Character count: 34975

Article Templates in Jurnal Aplikasi Manajemen
(Example can be seen in one of the articles on the journaljam.ub.ac.id)

MEASURING APPLICATION AUGMENTED REALITY TO INCREASE MSME PERFORMANCE USING TECHNOLOGY ACCEPTANCE MODEL

Noni Setyorini
Management, Universitas PGRI Semarang,Indonesia
Qristin Violinda
Management, Universitas PGRI Semarang, Indonesia
Arisul Ulumuddin
Study Program of Primary School Teacher, Universitas PGRI Semarang, Indonesia
Erandi Jinadari Wattegama
Banking and Finance, Wayamba University of Srilanka, Srilanka

Abstract: This study aims to examine the effect of perceived usefulness and perceived easy to use on the performance of MSMEs in Ngerangan Village, Klaten with trust as a mediator. The data collection method used is probability sampling with saturated sampling technique. The total respondents in the study were 100 respondents which is MSME in Ngerangan Village. Hypothesis testing using smartPLS software. The results of the study are perceived usefulness and perceived easy to use affect trust. Likewise, trust has an influence on the performance of MSMEs in Ngerangan Village. However, perceived usefulness does not directly affect the performance of MSMEs. In contrast to perceived easy to use which has a direct influence on the performance of MSMEs. The practical implications of this research are that the technology adopted by MSMEs must be easy to use and have many benefits for business development.

Keywords: MSME, Perceived Usefulness, Perceived Easy to Use, Performance, Trust

The growth of internet users in Indonesia continues to increase. Based on a survey conducted by the Association of Indonesian Internet Service Providers, data shows that every year, internet users in Indonesia continue to experience a constant increase. Based on technological advances that are increasingly rapidly increasing, gadgets and mobile phones can now be used for product promotion purposes so that they can be used for business activities of companies and MSMEs. Safitri (2020) states that Indonesia's economy development is strongly influenced by the MSME. It will be an important issue to developing IT-based MSME and optimally utilizing Augmented Reality (AR).

Augmented Reality (AR) is one of the modern technologies that can be used by sellers to promote goods to potential buyers. Augmented Reality/AR is the enrichment of an object or space in the physical world by adding virtual three dimensional elements from a computer (Altinpulluk, 2017). Currently, AR is one of the technologies that is widely spread in society because its use is already connected to mobile devices. AR is also one of the technologies that support the birth of the Industrial Revolution 4.0 because it is disruptive or able to replace various human work so that it creates efficiency and effectiveness (Van Krevelen and Poelman, 2010).

Currently, AR is a digital technology that can be used in various activities, including in the marketing of a product (Gallardo et al., 2018). The technology is considered capable of providing its own experience for users in enjoying digital content about a product compared to other digital media. Augmented Reality (AR) is also a digital technology that has provided many benefits in various activities, including marketing (Carmigniani et al., 2011). As a technology that can be accessed via mobile devices, AR is considered to be an effective technology in conducting marketing communications. Not only increasing a person's intention to buy products, AR technology on mobile devices is considered to be a communication medium that provides solutions according to customer needs, can be used anywhere and encourages competitive advantage from customers. As one of the technologies supported by mobile devices, AR is considered to be able to support marketing and IMC communication activities on a product. By using AR, consumers will be more interested in buying a product (Mekni and Lemieux, 2014). In fact, users of the AR application can provide comments in the review column on the Apps Store, which can function as a Word of Mouth (WoM).

Augmented Reality (AR) is currently not only used for large companies, but augmented reality is also very useful if used for MSMEs in Indonesia. The Ngerangan Village area, Bayat District is one of the potential tourist villages owned by Klaten Regency. The area has a beautiful landscape, and can be used to encourage the local economy which attracts tourists to visit. Ngerangan Village has many MSMEs that are already running, such as Angkringan, Fertilizer MSMEs, Handicraft MSMEs, Doelanan MSMEs, etc. Currently, all MSMEs operating in Ngerangan Village have been managed by BUMDES Nerangjaya to be more competitive.

Applications such as augmented reality that are applied are also very useful to assist MSMEs in Ngerangan Village to providing information and assisting customers. In AR technology, users can visualize objects in 3 dimensions. AR has the advantage of being interactive and real time so that AR is widely implemented in various fields. Although it is

popular and often spoken, augmented reality technology is still rarely used by MSMEs (Businesses, Micro, Small and Medium Enterprises) and small business actors (Kristian et al., 2020). Limited capital for equipment procurement, video production, and investment in augmented reality technology are the main obstacles. AR has the benefit of getting more customers, namely the use of AR for MSMEs so that customers feel a trying experience that attracts consumers to shop at MSMEs, so that customers do not need to go directly to MSME locations but before that consumers can see products, AR also has the ability to provide information about products instantly to customers (Fitzgerald et al., 2013).

Based on this condition this study uses the Technology Acceptance Model (TAM) theory based on the theory expressed by Venkatesh and Davis (2000) that TAM is a concept that is considered the best in explaining user behavior towards new information technology systems. TAM is a model that is considered the most appropriate in explaining how users receive a system.

The TAM factor used in this study is perceived usefulness and perceived ease of use in accordance with the theory of Davis (2013) which states that perceived usefulness and perceived ease of use are basic determinants of user acceptance. Perceived usefulness is a measure where the use of technology is believed to bring benefits to people who use it, while the perceived ease of use of technology is a measure where a person believes that computers can be understood and used easily. Perceived ease of use, is the extent to which users believe that using the system will not find difficulties (Davis, 2013).

Based on previous research, (Wahyudi and Pawestri, 2006) stated that perceived usefulness and perceived easy to use had an impact on performance. Aboelmaged and Gebba (2013) also explained the influence of the concept of technology adoption on fintech performance in banking. Chuang et al. (2016) the impact of The adoption of fintech services with a TAM perspective. Based on some of these previous studies, Technology Acceptance Model (TAM) is used as the basic construction of research because TAM has been studied and has proven to be one of the most effective theories in predicting or explaining technology acceptance. Therefore, this study examines whether TAM can be used to identify the factors that influence technology acceptance towards the use of Augmented Reality in MSMEs in Ngerangan Village.

LITERATURE REVIEW

Technology Acceptance

Technology acceptance is defined as "as a user's willingness to employ technology for the tasks it is designed to support". It means that technology acceptance can be defined as the willingness of users to use technology to support the tasks that have been designed (Teo, 2011). Technology Acceptance Model (TAM) This model was originally proposed by Davis and has become the most widely used model to explain user acceptance of new technologies (He et al., 2018). TAM was developed from Theory of Reasoned Action and provides a basis for tracking how external variables influence beliefs, attitudes and intentions to use new technologies (Venkatesh and Davis, 2000). This model has been used to predict acceptance of new IT and has proven reliable in explaining acceptance behavior in several areas of information systems (Kamal et al., 2020).

Perceived Ease of Use

Perceived ease of use means an individual's belief that using an information technology system will not be inconvenient or require great effort when used (free of effort) (Tahar et al., 2020). Perceived ease is related to how easy it is to access a technology system and its display. Based on the Technology Acceptance Model (TAM) model introduced by Davis (2013) users' perceived ease-of-use is one of the most critical factors in their acceptance of a system.

Perceived Usefulness

Perceived usefulness is a person's tendency to use a technology and believe that it will help him do a better job (Subramanian, 1994). According to Chawla and Joshi (2019), Perceived Usefulness is the belief that using a technology will improve user performance. Perceived usefulness (PU) – This was defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance their job performance". It means whether or not someone perceives that technology to be useful for what they want to do (Kamal et al., 2020).

Trust

Trust is often defined as personality-based trust because it refers to a person's general tendency to trust or distrust others. According to (Chuang et al., 2016), trust is a willingness to be loyal to a service provider based on positive expectations of the service provider's behavior in the future. Trust is one of the factors that influence acceptance a technology. This is based on

several research results, including Zakwannur in his research which concluded that trust affects e-commerce transactions so that it will improve company performance (Haning, 2021).

Performance

Performance is the achievement obtained by a person or company in achieving a goal. Maximum performance is the main expectation of a business unit in running its business. Performance is the success of personnel, teams, or organizational units in realizing predetermined strategic goals with the expected behavior (Armstrong et al., 2004). Good, maximum and optimal performance is the goal of all MSMEs. Good performance in all sectors, including finance, production, distribution and marketing, is an absolute requirement for MSMEs to survive (Chuang et al., 2016). With good performance, an MSME is also expected to become the backbone of the economy and will play an increasingly important role in the national economy.

HYPOTHESIS DEVELOPMENT

The Relationship Perceived Easy to Use toward Trust

Consumer convenience is defined as easy to make a purchase transaction. Perceptions of convenience include the ease of making purchase transactions in a way. As well as easy to compare product prices and ease of procedures in online shopping. The convenience of the intended procedure is how easy it is to make payment transactions to buy products of interest. Individual perception related to the ease of using the application (perceived ease of use) is the degree to which individuals believe that using a particular system will be error-free. Gefen (2003) analyzed the effect of perceived ease of use on trust, showing that perceived ease of use had a positive and significant effect on trust. (Bartov et al., 2018) said perceived ease of use had an impact on trust. This means that the higher the perceived ease of use perceived by consumers, the higher the level of trust will also be.

H1 : Perceived Easy to Use has a positive impact toward Trust

The Relationship between Usefulness toward Trust

(Davis, 1989)defines the perception of usefulness as the degree to which a person believes that using a particular system would enhance his or her job performance, i.e. a person's level of confidence in the use of a certain technological system will increase that person's work performance (Erasmus et al., 2015; Mauro and Afonso-Mazzon, 2007). This concept describes the benefits of the system for users related to productivity, task performance, effectiveness,

importance of a task and overall usefulness (Rafique et al., 2020). Suki and Suki (2011) showed a positive and significant effect of perceived benefits on trust. Perception of convenience is also a consideration to build trust that arises in the minds of consumers. Perceived ease of use and perceived usefulness were found to be positively and significantly related to trust (Henderson and Divett, 2003). This means that the higher the perceived usefulness of the consumer, the higher the level of trust will be.

H2 : Perceived Usefulness has a positive impact toward Trust

The Relationship between Trust toward MSMEs Performance

(Chuang et al., 2016) is all knowledge possessed by consumers and all conclusions made by consumers about objects, attributes, and benefits. Trust is defined as the individual's willingness to depend on other parties involved in the exchange because the individual has confidence in the other party. Building trust in long term relationships with customers is an important factor. Kamal et al. (2020) shows that trust has a positive effect on buying interest. This trust is built on the trust of business relationships with partners. Greater consumer confidence motivates customers to produce more intention to buy at shopping centers via the internet. Haning (2021) also emphasized that trust must be built to improve the performance of MSMEs Performance.

H3 : Trust has a positive impact toward MSMEs Performance

The Relationship between Perceived Easy to Use toward MSMEs Performance

Perceived ease of use is an understanding that refers to the extent to which a person believes that using a particular system will be free from effort (Davis, 2013). If an information technology system is difficult to operate, users will spend a lot of energy to be able to use the information technology system. An information technology system in general must be easy to use by all parties including the application so that it can be accepted by its users. Performance is the achievement obtained by a person or company in achieving a goal. Maximum performance is the main expectation of a business unit in running its business. Performance is the success of personnel, teams, or organizational units in realizing predetermined strategic goals with the expected behavior (Armstrong et al., 2004).

H4 : Perceived easy to use has a positive impact toward MSMEs Performance

The Relationship between Perceived Usefulness toward MSMEs Performance

Perceived usefulness is also defined as a measure of the use of a technology that is believed to bring benefits to the people who use it which states that this perceived usefulness is associated with an increase in individual performance which has an impact on opportunity to obtain benefits, both material and non-material (Davis, 1989). The information system developed by MSMEs is expected to have usefulness values so that they can improve MSME performance. Good, maximum and optimal performance is the goal of all MSMEs. Good performance in all sectors, including finance, production, distribution and marketing, is an absolute requirement for MSMEs to survive (Venkatesh and Davis, 2000). With good performance, an MSME is also expected to become the backbone of the economy and will play an increasingly important role in the national economy.

H 5 : Perceived Usefulness has positive impact toward MSMEs Performance

Trust Mediates the Effect of Perceived Usefulness on MSME's Performance

Transactions carried out through e-commerce have a relatively high risk potential so that trust has an important role in transactions. Consumers will feel safe in transactions if marketers can maintain privacy, product quality, be honest and keep promises about the products offered and the time promised. Venkantesh and Davis (2000) explained that perceived usefulness describes individual interactions with the system that are felt to provide benefits and make buying and selling activities easier so that it will increase consumer confidence so that this will have an impact on increasing MSME's performance.

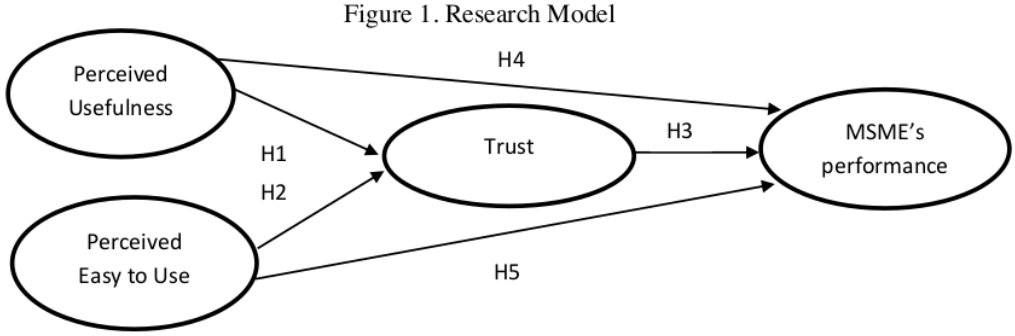
H6 : Trust mediates the effect of perceived usefulness on MSME's performance

Trust Mediates the Effect of Perceived Easy to Use on MSME's Performance

Trust is a certain party's belief in another in carrying out a transaction relationship, a belief that the person he trusts will fulfill all his obligations properly as expected. Trust is the foundation of business. A business transaction between two or more parties will occur if each trusts the other. If a customer no longer trusts a service company, then most likely that person will no longer use the services of that company. Venkantesh and Davis explain that perceived easy to use describes individual interactions with systems that are perceived as easy to use so that it will increase consumer confidence so that this will have an impact on increasing MSME's performance.

H7 : Trust mediates the effect of perceived usefulness on MSME's performance

Figure 1. Research Model



Hypothesis

H1 : Perceived usefulness has a positif impact on trust

H2 : Perceived easy to use has a positif impact on trust

H3 : Trust has a positif impact on MSME's performance

H4 : Perceived usefulness has a positif impact on MSME's performance

H5 : Perceived easy to use has a positif impact on MSME's performance

H6 : Trust mediates the effect of perceived usefulness on MSME's performance

H7 : Trust mediates the effect of perceived easy to use on MSME's performance

METHOD

This study uses quantitative methods. Quantitative method is one way of research that adopts the flow of positivism (Neuman, 2014). This research uses probability sampling method with saturated sampling technique. The research respondents were MSMEs in Ngerangan Village as many as 100 respondents. The selection of MSMEs in Ngerangan Village was chosen because MSMEs in Ngerangan Village have the characteristics of angkringan and are the initiators of Angkringan Village so that they have many MSMEs in the form of angkringan that have been established and managed by BUMDES. BUMDES which manages angkringan SMEs already has 3 stars, namely BUMDES has been formed, has institutional foundations but is not yet strong. Data was collected using a questionnaire. While data processing using SmartPLS 3.0. The test is carried out in 2 stages. The first stage is the evaluation of the measurement model which aims to ensure that the research instrument used is a valid and reliable instrument. Meanwhile, in the second stage, evaluation of structural model testing was carried out. This test consists of goodness of fit testing, statistical t test, R square test, and path coefficient.

Variable Operational Definition

Variable	Concept	Indicator	Example
Perceived usefulness	Davis (1989) defines the perception of usefulness as the degree to which a person believes that using a particular system would enhance his or her job performance	Perceived usefulness is measured using 5 indicators	the augmented reality application is useful for obtaining information on MSME products
Perceived ease of use	Perceived ease of use is an understanding that refers to the extent to which a person believes that using a particular system will be free from effort (Davis, 1989).	Perceived easy to use is measured using 4 indicators	I find it easy to use the facilities available in investment applications
Trust	(Su et al., 2013), trust is a willingness to be loyal to a service provider based on positive expectations of the service provider's behavior in the future	The trust variable is measured using 7 indicators.	an augmented reality application that I choose to be trusted
MSME's performance	MSME's performance is the achievement	MSME's performance is	augmented reality application

	obtained by a person or company in achieving a goal.	measured using 7 indicators	that has been developed to have good performance and follow current business developments.

RESULTS

Respondents in this study were AR (Augmented Reality) users at several MSMEs managed by BUMDES Nerangjaya Bayat Klaten after the AR (Augmented Reality) program was developed. The process of distributing questionnaires is carried out by distributing questionnaires directly to the field for approximately one month. The details of the frequency and characteristics will be explained in the following table:

Table. Characteristics of Respondents

Characteristic	Frequency	Percentage
Gender		
Male	56	56%
Female	44	44%
A		
< 20 years old	11	11 %
21-30 years old	32	32 %
31-40 years old	45	45%
41-50 years old	12	12%
>50 years old	0	0%
Education		
Junior High School	12	12 %
Senior High School	47	47 %
Vocational Degree	23	23 %
Bachelor Degree	18	18%
shopping frequency in a n th		
<3 times a year	27	27%
3-10 times a year	49	49%
>10 times a year	24	24%

Frequently purchased products		
Culinary	48	48%
Fertilizer	15	15%
Crafting	5	5%
Entertainment	32	32%

Based on the table, the average augmented reality user is male. Whereas in the age range of AR applications, users are dominated by the age of 31-45 years, then the age of 21-30 years as much as 32%, and the least is the age of <17 years as much as 11%. Meanwhile, in terms of education, the average AR application users are respondents with high school education as much as 47%, then diploma education level as much as 23%, undergraduate education level 18%, and junior high school education level as much as 12%. The frequency of respondents in buying MSME products in BUMDES is mostly 3-10X a month as much as 49%, with products that are in great demand are culinary as much as 48%, entertainment 32%, fertilizer 15%, and handicrafts 5%.

Tests in this study are divided into 2 categories. The first is the evaluation of measurement testing. Evaluation of measurement is divided into 2 tests, namely validity test and reliability test. The validity test uses convergent validity using the AVE value and the outer loading value. While the reliability test uses composite reliability and Cronbach alpha values.

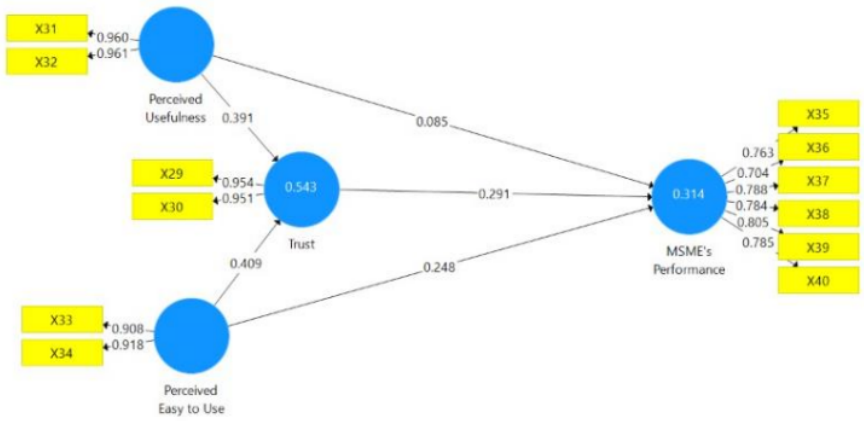
Validity testing using AVE has an assessment standard, namely the AVE value must be above 0.5. If we look at the AVE value of each variable, we can see that the AVE value of the perceived usefulness, perceived easy to use, trust and performance variables is above 0.5 so that all variables are declared valid (Hair et al., 2009).

Table 1. Validity Testing using AVE value

Variabel	**AVE Value**	**Conclusion**
Perceived Usefulness	0.923	Valid
Perceived Easy to Use	0.834	Valid
Trust	0.907	Valid
MSME's Performance	0.596	Valid

As for the next, when viewed using the outer loading value, it can be seen in figure 1. The results of the outer loading values in Figure 2 each have a value greater than 0.7 so that all indicators are declared valid.

Figure 2. Result of Validity Testing using Outer loading Value



If the validity test has been met, the next step is reliability testing using the Cronbach alpha value and the composite reliability value. The results of reliability testing can be seen in the following table. Reliability testing in terms of the value of Cronbach alpha and composite reliability. The variable is declared reliable if the Cronbach alpha value is above 0.7 while the composite reliability value is above 0.7 (Ghozali, 2015). When viewed from the Cronbach alpha value of each variable, it can be concluded that the Cronbach alpha and composite reliability values have been above the required standard so that the variables perceived usefulness, perceived easy to use, trust and performance are reliable variables.

Table 2. Reliability Testing

Variabel	Cronbach Alpha	Composite Reliability
Perceived Usefulness	0.916	0.960
Perceived Easy to Use	0.801	0.909
Trust	0.865	0.898
Performance	0.897	0.951

Second, testing the evaluation of the structural model. Testing in this stage is to ensure that the research model developed is a good research model and then the research hypothesis is tested. The test consists of testing the fit model, r square test, statistical t test, and path coefficient (Cooper and Schindler, 2009).

The model fit test in this research model is seen from the SRMR, Chi Square, and NFI values. In order for the model to meet the model fit criteria, the SMSR value must be less than 0.05 (Cangur & Ercan, 2015). However, based on the explanation from the SMARTPLS

website, the limitations or criteria for the fit model include: RMS Theta value or Root Mean Square Theta < 0.102 SRMR value or Standardized Root Mean Square < 0.10 or < 0.08 and NFI value > 0.9.

Table 3. Model Fit

Parameter	Saturated Model	Estimated Model
SRMR	0.064	0.064
Chi Square	170.493	170.493
NFI	0.762	0.762
RMS theta	0.275	0.275

In accordance with the fit model image above, the RMS Theta or Root Mean Square Theta value is 0.064 < 0.102, the NFI value is 0.762 < 0.9 the model belongs to the marginal fit category, the SRMR or Standardized Root Mean Square value is 0.064 < 0.10. So based on the two assessments of the model, it is concluded that the model fits the data.

After testing the fit model then testing the R Square value. The R square test is used to explain the magnitude of the proportion of variation of the dependent variable that is explained by the independent variable. The results of the R Square test are as follows.

Table 4. R Square Test

Variabel	R Square	Adjusted R Square
Trust	0.543	0.533
Performance	0.314	0.290

The R Square value of the effect of X1 and X2 simultaneously on Y is 0.543 with an adjusted r-square value of 0.533. So, it can be explained that all exogenous constructs (X1 and X2) simultaneously affect Y by 0.533 or 53.3%. Because Adjusted R Square is more than 33% but less than 67%, the effect of all exogenous constructs X1, X2 on Y is moderate. While the R Square value of the influence of X1, X2 and Y simultaneously on Z is 0.314 with an adjusted r-square value of 0.290. So, it can be explained that all exogenous constructs (X1, X2 and Y) simultaneously affect Z by 0.290 or 29%. Because Adjusted R Square is more than 33%, the effect of all exogenous constructs X1,X2, Y on Z is weak.

Furthermore, testing is carried out to test the research hypothesis as seen from the t statistic value or p value to determine whether the hypothesis is supported or not supported. In addition, it is also necessary to look at the path coefficient value to see the direction and magnitude of influence between research variables. The following are the results of testing the research hypothesis:

Table 4. Hypothesis Testing

	O	M	STDEV	T statistics	P value
Perceived Usefulnes => Trust	0.391	0.384	0.102	3.842	0.000
Perceived Easy to Use => Trust	0.409	0.413	0.102	4.000	0.000
Trust => Performance	0.291	0.286	0.129	2.258	0.024
Perceived Usefulness => MSME's Performance	0.085	0.086	0.104	0.823	0.411
Perceived Easy to Use => MSME's Performance	0.248	0.251	0.117	2.126	0.034
Perceived Usefulness => Trust => MSME's Performance	0,114	0,114	0,059	1,933	0,054
Perceived Easy to Use => Trust => MSME's Performance	0,119	0,122	0,063	1,896	0,059

30

Based on the results of testing the hypothesis, it can be seen that the effect of perceived usefulness on trust is 0.391 with a t statistic value of 3.589> 1.96 and a p value < 0.05 so that the hypothesis is supported. This is because if MSMEs feel that the AR (Augmented Reality) tool used is software that provides benefits for their business development, this will create a feeling of trust in the tool. Good software will provide information about the products offered such as prices, product types, product content, etc. This information is very helpful for MSMEs to provide information to potential consumers so that MSMEs will have a sense of trust that the software developed will help them.

The effect of perceived easy to use on trust is 0.410 with a t statistic value of 4.095 > 1.96 and a p value < 0.05 so that the hypothesis is supported. Perceptions of the ease of use of Augmented Reality software are needed to continue to make improvements and adjustments related to providing information to consumers. Therefore, the software must be easy to use by MSMEs. If the software is able to facilitate and assist MSME business processes, it will create confidence to continue using the AR software.

The effect of trust on performance is 0.521 with a t statistic value of 6.629 > 1.96 and a p value < 0.05 so that the hypothesis is supported. The trust of MSMEs using AR for the benefits of using this technology will make MSMEs use the software so that they will be able to improve their MSME performance. This is because by using this software, MSMEs are

becoming increasingly recognized by the existence of a bridge between consumers and MSMEs.

The effect of perceived usefulness on MSME's performance is 0.085 with a t statistic value of 0.823 < 1.96 and p value > 0.05 so that the hypothesis is not supported. Perception of benefits does not affect the performance of SMEs. This is influenced by readiness in using technology. If business actors and customers do not have the readiness to use AR technology, this will not affect the performance of MSMEs.

The effect of perceived usefulness on MSME's performance is 0.248 with a t statistic value of 2.126 > 1.96 and p value < 0.05 so that the hypothesis is supported. The perception of the ease of using AR applications is believed to attract consumers to seek information about the product, its benefits and how to get the product so that it will attract consumers to make purchase transactions. The increase in transactions will have an impact on improving the performance of MSMEs.

The effect of perceived usefulness on MSME's performance by trust as mediating variable is 0.114 with a t statistic value of 1.933< 1.96 and p value > 0.05 so that the hypothesis is not supported.

The effect of perceived easy to use on MSME's performance is 0.248 with a t statistic value of 2.126 > 1.96 and p value < 0.05 so that the hypothesis is supported.

DISCUSSION

Perceived Usefulness and Trust

The AR application applied to MSMEs in Ngerangan Village has been able to visualize various MSME products well. Through AR technology, customers can personalize items through videos and images, so that customers are able to choose products that match their preferences and desired tastes, allowing customers to make more informed purchasing decisions. This will make customers feel that this AR application is useful to help customers find the products they want. Perceived usefulness is one of the important perceptions when starting to implement a new application. When consumers start to realize about AR applications and understand the usefulness of AR applications. AR applications are a way to introduce new products, provide information about locations, types of products offered, etc. This is useful for consumers to get more information about products, MSME locations, entertainment, etc. When AR is built well and continues to be updated regarding innovations made by MSMEs, it will increase consumer confidence. So that the AR application developed will be a reference for consumers.

Perceived Easy To Use and Trust

MSMEs in Ngerangan Village are trying to make updates by applying augmented reality (AR) to the business they are running. As a business entity, MSMEs in Ngerangan Village have tremendous potential in the application of augmented reality (AR) technology. In addition to the large and diverse numbers, MSMEs can also target the wider community. Based on the business goal of attracting new customers and clients as well as retaining existing customers, AR allows new customers to find out which products are traded in MSMEs in Desa Ngerangan. Therefore, the applied AR must be able to make it easier for customers. If customers feel that this AR application is easy to use then it will be able to attract and retain customers. Perceived ease of using AR applications and perceived benefits will increase customer trust in MSMEs in Ngerangan Village. This is because the use of AR technology is able to improve the reputation of MSMEs in Ngerangan Village. Thus, ultimately helping to attract new buyers and retain existing customers. A similar experience is also offered by technology-savvy MSMEs through the Augmented Reality application. AR applications for SMEs in Ngerangan Village can provide travel guides, maps of an area, recommendations on places to eat and tourist attractions, to help convince customers to visit Ngerangan Village.

Trust and MSME's Performance

Trust in applications is important for MSMEs. A good level of trust in MSMEs will be able to improve MSME performance. This is because trust is one of the proofs of acceptance of AR among the public. In addition, trust has a central role in facilitating various social interactions between community members and MSMEs, so that trust is an integral requirement for maintaining successful interpersonal relationships. In addition, marketing, technology, access to capital, the effect of access to information, social networks, legality, business plans, entrepreneurship readiness, government support simultaneously and significantly affect the performance of MSMEs. Micro, Small and Medium Enterprises (MSMEs) as an organization are required to have good performance. Performance is an issue in today's business world. This happens as a consequence of the community's demands for the need for excellent service or high quality services. Quality is inseparable from standards, because performance is measured by standards.

Perceived Usefulness and MSME's Performance

Perceived usefulness has an impact on the performance of SMEs. Information technology readiness can primarily be seen in individuals who will use the technology and from the readiness of the technology itself. Individual readiness is the extent to which the individual can accept new technology without any doubt on using it (Desmayanti & Zulaikha, 2012). Perceived usefulness can be a determinant in predicting the use of internet services (Gao & Bai, 2014). The same thing was expressed by Tahar et al. (2020) the perceived usefulness of the system is related to the productivity and effectiveness of the system and its overall benefits to improve user performance. The more useful a technology is, the higher the users' desire to use it. So that more consumers will use AR technology and make product purchases.

Perceived Easy To Use and MSME's Performance

Perceived ease of using AR applications and perceived benefits will increase customer trust in MSMEs in Ngerangan Village. This is because the use of AR technology is able to improve the reputation of MSMEs in Ngerangan Village. Thus, ultimately helping to attract new buyers and retain existing customers. A similar experience is also offered by technology-savvy MSMEs through the Augmented Reality application. AR applications for SMEs in Ngerangan Village can provide travel guides, maps of an area, recommendations on places to eat and tourist attractions, to help convince customers to visit Ngerangan Village.

Mediation Role of Trust between Perceived Usefulness and MSME's Performance

Previous research by Setyorini and Nugraha (2016) had found that perceived usefulness had a positive and significant influence on customers' repurchase intention through trust. Furthermore, Chiu et al. (2009) also found that customers' trust will disappear when customer started to think that the new system of technology bring them no advantages toward the old method or system, which could alter their intention to re-buy or re-use the system of technology. This repurchase intention has also been shown to improve marketing performance (Chiu et al., 2009). Previous research by Oroh & Rumokoy (2015) found that trust had a positive impact toward repurchase intention. Furthermore, another research by Aren et al. (2013) also found that trust could influence customer's intention to make another purchase decision from the same company. Further research by Setyorini and Nugraha (2016), and Wilson and Keni (2018) also confirmed that in the e-commerce sector, trust had a positive impact on repurchase intention. Based on the results of previous studies and the results of the research we have done, this proves that trust mediates repeat purchases and can improve the performance of SMSEs in Ngerangan Village.

Mediation Role of Trust between Perceived Easy To Use and MSME's Performance

Previous research by Aren et al. (2013) had found that perceived ease-of-use had a positive impact on repurchase intention. Furthermore, previous study by Chen (2012) also found that perceived ease-of-use could positively affecting customers' intention on making another buying activity through the same stores. Wen et al. (2011) shown that perceived usefulness have a positive Impact on repurchase intention. Furthermore, another research by Purnami and Nurcaya (2015), and Chen (2012) also found that perceived usefulness have a positive impact on repurchase intention. Ease of use of technology can give consumers confidence to repurchase the product, if the product is sold a lot this will also increase the performance of MSMes (Chen, 2012)

CONCLUSIONS

The TAM perspective uses perceived usefulness and perceived easy to use variables in the technology adoption process. Based on research that has been done, the perceived usefulness variable has a positive and significant effect on trust, as well as the perceived easy to use variable also has a positive and significant effect on trust. Based on these conditions, when consumers know and feel the benefits of using augmented reality, consumers will create a sense of trust in MSME actors. to make a purchase.While the trust variable has a positive and significant effect on the performance of MSMEs. However, perceived usefulness does not directly affect the performance of MSMEs. In contrast to perceived easy to use which has a direct influence on the performance of MSMEs.

IMPLICATIONS

The results of this study are expected to help MSME to manage and create a quality customer experience by applied augmented reality to create trust in the seller and encourage the new customer so the performance of MSMEs will be better.

LIMITATIONS

This study uses a questionnaire as a method of collecting data on respondents. However, this questionnaire is only able to capture the suitability of respondents' perceptions with the statements submitted to MSME actors. So that the answers obtained are only able to answer the allegations put forward in the hypothesis, they have not been able to dig deeper information about the process of adopting augmented reality on MSMEs in Ngerangan Village.

RECOMMENDATIONS

To improve the performance of SMEs in addition to testing the application of technology such as augmented reality, further research needs to be carried out using other variables such as local wisdom, local, resources, local knowledge, etc. In addition, it is also necessary to consider research using qualitative methods to understand MSMEs more deeply so that it is easier for researchers to provide suggestions to improve MSME performance.

MEASURING APPLICATION AUGMENTED REALITY TO INCREASE MSME PERFORMANCE USING TECHNOLOGY ACCEPTANCE MODEL

ORIGINALITY REPORT

14%	%	10%	10%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to University of South Africa Student Paper	1%
2	Submitted to Massey University Student Paper	1%
3	Ummul Hairah, Edy Budiman, Rosmasari, Muhammad Bambang Firdaus, Andi Tejawati, Haviluddin. "Technology Acceptance Model in One Stop Service Systems during the Covid-19 Pandemic", 2021 3rd East Indonesia Conference on Computer and Information Technology (EIConCIT), 2021 Publication	1%
4	Submitted to University of Mindanao Student Paper	1%
5	Submitted to Higher Education Commission Pakistan Student Paper	1%
6	Submitted to STIE Indonesia Banking School Student Paper	1%

7	Shih-HUng Hsu, William Jen. "TECHNOLOGY ACCEPTANCE FOR FIELD WORKERS WITH PORTABLE DEVICES AND THE EFFECT OF PERCEIVED BEHAVIORAL CONTROL", Proceedings of the Eastern Asia Society for Transportation Studies, 2007 Publication	1 %
8	Submitted to Universitas Mataram Student Paper	<1 %
9	Sesilya Kempa, Wiliam Ardiyanto Wisnu Pratama, Noneng Rokayah Sukatmadiredja. "Insurance Policy Purchase Decision in Surabaya, Indonesia", SHS Web of Conferences, 2020 Publication	<1 %
10	Osman El-Said, Sara Al Hajri. "Are customers happy with robot service? Investigating satisfaction with robot service restaurants during the COVID-19 pandemic", Heliyon, 2022 Publication	<1 %
11	Natalia Limantara, Jimmi Lianto Kurniawan, Kevin, Fredy Jingga. "Analysis of Factors Affecting The Reuse of Online Food Delivery Service Applications", 2022 International Conference on Information Management and Technology (ICIMTech), 2022 Publication	<1 %

12	Submitted to IAIN Pontianak Student Paper	<1%
13	Submitted to Jabatan Pendidikan Politeknik Dan Kolej Komuniti Student Paper	<1%
14	Bambang Leo Handoko, Given Name Siswono, Julyanka Mustika Azani. "Analysis of Perceived Risk, Perceived Trust, Perceived Security Factors on Consumer Intention using E-Payment", 2022 8th International Conference on E-business and Mobile Commerce, 2022 Publication	<1%
15	Bambang Leo Handoko, Tanty Oktavia, Niken Pratiwi. "Influence of Perceived Usefulness, Perceived Ease of Use, Cost Effectiveness, and Interactivity on Attitude towards Digital Collaboration Platforms Binus Mobile Application", 2022 8th International Conference on E-business and Mobile Commerce, 2022 Publication	<1%
16	Hesham Allam, Michael Bliemel, Louise Spiteri, James Blustein, Hossam Ali-Hassan. "Applying a multi-dimensional hedonic concept of intrinsic motivation on social tagging tools: A theoretical model and empirical validation", International Journal of Information Management, 2019	<1%

Publication

17	Lely Indah Mindarti, Akmal Malik, Bambang Supriyono, Hermawan. "Quality of Regional Election Implementation as Determinant of Performance of Simultaneous Regional Election: Community Trust and Satisfaction as Mediation, and Regulatory Harmonization as Moderation", Review of Pacific Basin Financial Markets and Policies, 2021 Publication	<1 %
18	Submitted to Universitas 17 Agustus 1945 Semarang Student Paper	<1 %
19	Submitted to Universitas Airlangga Student Paper	<1 %
20	Submitted to Sriwijaya University Student Paper	<1 %
21	Submitted to Binus University International Student Paper	<1 %
22	Devi Wahyu Hidayah, Asri Rejeki. "CONSUMER TRUST ON BUYING INTEREST IN ONLINE SHOPPING: E-COMMERCE SHOPEE", Journal Universitas Muhammadiyah Gresik Engineering, Social Science, and Health International Conference (UMGESHIC), 2021 Publication	<1 %

23	Ahmad - Roziq, Eka Desy Suryaningsih, Nur - Hisyamuddin. "VARIABLES DETERMINING MUZAKI LOYALTY IN PAYING ZAKAT, INFAQ AND SHODAQOH AT ZAKAT INSTITUTIONS IN INDONESIA", INFERENSI: Jurnal Penelitian Sosial Keagamaan, 2020 Publication	<1 %
24	Submitted to University of Lancaster Student Paper	<1 %
25	Submitted to University of Portsmouth Student Paper	<1 %
26	Submitted to Universitas Respati Indonesia Student Paper	<1 %
27	Joseph Lobo. "Virtual Physical Education: Google Meet as an Alternative Learning Tool for Skill-based Concepts", Research Square Platform LLC, 2022 Publication	<1 %
28	Submitted to University of Wollongong Student Paper	<1 %
29	Chin - Shan Lu, Kee - Hung Lai, T. C. E. Cheng. "Adoption of Internet Services in Liner Shipping: An Empirical Study of Shippers in Taiwan", Transport Reviews, 2006 Publication	<1 %
30	Submitted to Itä-Suomen yliopisto Student Paper	

		<1 %
31	Library Management, Volume 34, Issue 6-7 (2013-09-07) Publication	<1 %
32	Submitted to Regent's College Student Paper	<1 %
33	Submitted to University of Plymouth Student Paper	<1 %
34	Submitted to School of Business and Management ITB Student Paper	<1 %
35	Submitted to Universitas Negeri Surabaya The State University of Surabaya Student Paper	<1 %
36	Mohamad Saparudin, Agus Rahayu, Ratih Hurriyati, Mokh. Adib Sultan. "Exploring the Role of Trust in Mobile-Banking Use by Indonesian Customer Using Unified Theory of Acceptance and Usage Technology", International Journal of Financial Research, 2020 Publication	<1 %
37	Submitted to Northcentral Student Paper	<1 %
38	Submitted to University of Paisley Student Paper	

<1%

39 Ana Labella-Fernández, M. Mar Serrano-Arcos, Belén Payán-Sánchez. "Firm Growth as a Driver of Sustainable Product Innovation: Mediation and Moderation Analysis. Evidence from Manufacturing Firms", International Journal of Environmental Research and Public Health, 2021
Publication
<1%

40 "Abtracts from the 30th Annual Meeting of the Society of General Internal Medicine", Journal of General Internal Medicine, 2007
Publication
<1%

41 Submitted to Manchester Metropolitan University
Student Paper
<1%

42 Tish Taylor, Sue Geldenhuys. "Chapter 6 Using Partial Least Squares to Measure Tourism Students' Satisfaction with Work-Integrated Learning", IntechOpen, 2019
Publication
<1%

43 Famin Yi, Gaofeng Fan. "An Empirical Study on Consumer Purchase Intention Affecting Online Shopping Behavior", 2011 International Conference on Management and Service Science, 2011
Publication
<1%

44	Hsieh, Jun-Yi, and Pei-Wen Liao. "Antecedents and Moderators of Online Shopping Behavior in Undergraduate Students", Social Behavior and Personality An International Journal, 2011. Publication	<1 %
45	Olivier Loquineau, Aurélien Caplan, Karine Toumazeau, Christophe Zanetto, Marine Billiot, Frank Goethals. "On the Intention to Use an Online Learning Platform Feature", Scientific Journal of Riga Technical University. Computer Sciences, 2011 Publication	<1 %
46	Wiktoria Wilkowska, Martina Ziefle. "Chapter 6 Which Factors Form Older Adults' Acceptance of Mobile Information and Communication Technologies?", Springer Science and Business Media LLC, 2009 Publication	<1 %

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	On		