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Factors Affecting Consumer Intention on QR Payment of Mobile Banking: A Case Study in Indonesia

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Abstract

Technological developments facilitate payment transactions. In 2020, Bank Indonesia issued a regulation that supports QR payments using the Indonesian Standard Quick Response Code (QRIS). PT ABC is one of the banks that launched a QR payment feature on mobile banking with QRIS standards to make it easier for customers to make payment transactions at various merchants. In its implementation, the interest of QR payment users still tends to be small, so an analysis of the interests of QR payment users is carried out. The purpose of this study is to analyze the factors that influence user interest by using a modified UTAUT model. The UTAUT model was modified by adding variables to perceived trust, perceived risk, perceived regulatory support, and promotional benefits. The population taken is the company's customers in the DKI Jakarta area and it takes 403 samples for this case study. The results of empirical analysis show that 8 out of 12 hypotheses are considered proven where business expectations, social influence, perceived trust, perceived risk, perceptions of regulatory support, promotion benefits, age-moderated performance expectations, and age-moderate effort expectations have a significant effect on behavioral intentions, while performance expectations, facilitation conditions, business expectations are moderated by experience and social influence.

Keywords: QR Payment, QRIS, Mobile Banking, UTAUT Modification, Banking

JEL Classification Code: E42, E50, G21, G28

1. Introduction

The growth of mobile and smartphone technology that occurs globally affects the increase in mobile services, one of which is banking services (Gupta & Arora, 2017). The rapid development of mobile technology also provides many opportunities for the banking industry to create transactions. One of them is through mobile banking development as a medium that makes it easier for customers to transact via mobile or smartphone. One of these novel solutions swiftly expanding throughout the Indonesian market is the Quick Response Code Payment (QR Payment). This form of payment provides convenience and benefits that far supersede those of other commonly available payment methods. Most importantly, QR Codes can be read by smartphone devices, which most economically active Indonesians now own.

This QR service provider company is one of the leading national private banks in Indonesia that has mobile banking services. Its mobile banking has many features such as fund transfers, purchases, payments, account opening, electronic money, credit, QR payments, and customer information. The problem is, companies' interest in using QR payments is still low. However, Indonesian QR Payments are still in their infancy. Customer interest in the QR payment feature is still very low, especially when compared to company-owned QR merchant transaction data. Every month, the number of customers QR payment transactions is less than 50 percent of QR transactions at merchants. The provision of QR payment promos and the existence of the COVID-19 pandemic phenomenon in the form of an increase in QR payments still did not show a good number and did not match company expectations. Based on company information and the author's observations on the use of QR payments in the

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field, the authors intend to evaluate user acceptance of the existing QR payment system.

The evaluation will be carried out using the Unified Theory Of Acceptance and Use Of Technology (UTAUT) (Venkatesh et al., 2012), which has been modified by adding Perceived Value, Perceived Risk, Perceived Trust, Perceived Regulatory Support and Promotional Benefits (Madan & Yadav, 2016). The use of the UTAUT method has been widely used in evaluating mobile banking and mobile payment systems.

In other research Perceived Risk and Perceived Trust are considered the factors most often used to expand the UTAUT model in evaluating payment systems (Al-Saedi et al., 2019). Besides, the use of the UTAUT model with Perceived Risk and Perceived Trust is also used in research related to mobile payment in Indonesia (Chandra et al., 2018).

2. Literature Review

2.1. Mobile Banking

Mobile banking is the newest delivery channel used by retail and microfinance banks in many developing and developed countries and significantly affects the market (Shaikh & Karjaluoto, 2015). Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile such as a smartphone or a tablet (Baptista & Oliveira, 2015). Mobile Banking has main services that almost resemble services on other bank channels, such as view account balance, fund transfer, cardless withdrawal, bill payment, and QR payment.

2.2. QR Code

QR Code is the most popular type of two-dimensional barcode technology (Hau et al., 2013). QR Code is designed so that the content in it is decoded at high speed. QR Code can be read using a QR Scan owned by mobile or smartphone. QR Code consists of black and white modules that form a pattern and represent information in a 2-dimensional form and can be read vertically as well as horizontally so that QR Scan can be done from any angle.

QR Code has large storage, namely the ability to store up to 7,089 characters of information, much larger than a barcode. QR Code has the ability to encode with a character set containing 0–9 numeric data, alphanumeric data containing capital letters A–Z, numbers 0–9, and other characters such as % * + – / _ $ and also kanji characters. QR Code can also be printed in a small form with a 360-degree reading capability and can save and correct errors. If the printed code is damaged or dirty, it can be easily repaired. QR Code has a symbol forming a square pattern which contains an encoding area with the ability to be read in 360 degrees, is resistant to damaged symbols, and has a data restoration function.

2.3. QR Payment

QR code payment is a contactless payment method where payment is performed by scanning a QR code from a mobile app (Lou et al., 2017). The transaction value of barcode mobile payments—of which the most common are executed with QR codes—reached RMB21.4 trillion ($3.23 trillion) in China in 2018, according to iResearch Consulting Group (EMarketer, 2019). That accounted for 11.2% of total mobile payment transaction value via third-party service providers in 2018 (EMarketer, 2019). In Indonesia, Pay by QR has begun to be adapted for transfer and payment transactions. Indonesia made QRIS (Quick Response Code Indonesian Standard) regulations which became the standard QR transaction for all merchants in Indonesia.

2.4. The Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT was developed by Venkatesh et al. (2012). The UTAUT model combines the most suitable features and many theories of acceptance of pre-existing technology, then combines it into a theory. Some of the models used as a reference for building UTAUT are Theory Reasoned Action (TRA) (Hale et al., 2002), TAM (Szajna, 1996), Social Cognitive Theory (Luszczynska & Schwarzer, 2005), Theory of Planned Behavior (Conner & Armitage, 1998) and Innovation Diffusion Theory (IDT). The UTAUT aims to explain user intentions to use an information system and subsequent usage behavior. The theory holds that there are four key constructs/variables, which form the basis of this study, which are 1) performance expectancy, 2) effort expectancy, 3) social influence, and 4) facilitating conditions.

2.4.1. Performance Expectancy

Performance expectancy (PE) refers to an individual's perception of the likelihood that the use of a system will enhance his or her performance on the job (Venkatesh et al., 2012). PE is the main construct in the UTAUT model. Various researchers have considered the role of this factor in determining intentions (Baptista & Oliveira, 2015). There is also another study (Dzulhaida et al., 2015) that examined age-moderated PE.

2.4.2. Effort Expectancy

Effort expectancy has been introduced in the UTAUT model and is a crucial predictor of technology acceptance. According to Venkatesh et al. (2012), EE is "the degree of

ease associated with the use of the system. The extent to which consumers expect payment technology to be free from business and easy enough to learn so that it can be adopted in everyday life. EE can be explained as the anticipated complexity of the technology and the degree of energy needed to use it (Mamman et al., 2016). EE is moderated by age (Venkatesh et al., 2012).

2.4.3. Social Influence

Social influence (SI) is the degree to which an individual perceives that important others believe he or she should use the new system (Le et al., 2020) SI becomes the biggest supporting factor in the use of a new system by a person because it is influenced by the encouragement of the people and situation around him/her (Venkatesh et al., 2012). This construction has been widely accepted by many previous researchers in determining the interest in adopting technology such as mobile payment. SI can also be moderated by age (Venkatesh et al., 2012).

2.4.4. Facilitating Conditions

Facilitating condition (FC) are defined as the degree to which an individual believes that the organizational and technical infrastructure exists to support the use of a system or technology (Venkatesh et al., 2012) This includes the current status of infrastructure and technology, implementation team, methods of organizing company information to support the use of information. Facilitating conditions are perceived enablers or barriers in the environment that influence a person's perception of ease or difficulty of performing a task (Nguyen & Le, 2020). This definition includes the concepts of three different constructs, namely perceived behavioral control (TPB/DTPB, C-TAM-TPB), facilitating conditions (MPCU), and compatibility (IDT). FC has been considered by many researchers to be an important factor examining interest in technologies such as the Internet, mobile commerce, mobile banking, and others (Baabdullah et al., 2019; Herlambang & Dewanti, 2018; Patil et al., 2020).

2.5. UTAUT Modification

The UTAUT model combines the most suitable features and many theories of acceptance of pre-existing technology, then combines it into a theory (Venkatesh et al., 2012). Based on research from the previous system acceptance model, seven constructs determine interest in using a system. However, only four are considered conditions that influence behavioral intention and use behavior, including performance expectancy, effort expectancy, social influence, and facilitating conditions.

UTAUT model is modified and integrates perceived regulatory support (PRS) and promotional benefits (PB) as two new variables to overcome the requirements and characteristics inherent in the cellular wallet ecosystem (Madan & Yadav, 2016). UTAUT modification model carried out in researching e-wallets (Madan & Yadav, 2016) is the basis for the research model.

Perceived risk and perceived trust show a significant influence on behavioral intention (Lee & Song, 2013). There is also another study that states that behavioral intention can be considered as a result of behavior towards risk (Thakur & Srivastava, 2014). Perceived risk (PR) can be considered as a critical factor affecting system use (Baptista & Oliveira, 2015). Perceived risk has a negative and significant effect on attitude towards the use of mobile banking services and the intention to use them.

Besides, the UTAUT modification model used by Madan and Yadav (2016) which was modified with perceived regulatory support and promotional benefits in analyzing the e-wallet system shows a significant effect on behavioral intention.

2.5.1. Perceived Risk

Perceived risk (PR) is formed of two components, namely uncertainty and loss (Wang et al., 2019). The business also affects the level of risk (Tran & Nguyen, 2020); mobile phones usually store important personal information, which can create security concerns and privacy risks in conducting QR payment transactions (Madan & Yadav, 2016). Consumer perceptions of risk are an important barrier to consumer decision-making in consumer behavior research.

2.5.2. Perceived Trust

Perceived trust (PT) refers to the degree to which consumers perceive application providers as trustworthy with respect to the security and privacy policies that are followed by them (Madan & Yadav, 2016). Perceived trust entails individual readiness to take on certain behaviors without having any past experience or information about the endeavor. PT is considered a variable that significantly influences user desires. It refers to the consumer's view of whether a payment system can be trusted with respect to the security and privacy policies that they are following.

2.5.3. Perceived Regulatory Support

Perceived Regulatory Support (PRS) can be defined as the degree to which consumers believe in the ability of the applicable regulatory framework to protect their interests (Madan & Yadav, 2016). Mobile payment needs a clear and

transparent regulatory framework to protect the interests of the parties involved.

2.5.4. Promotional Benefits

Promotional Benefits (PB) can include various types of benefits such as application download cash prizes, coupon codes, cash discounts, loyalty points, and other freebies offered by companies involved in providing a service (Madan & Yadav, 2016). With increasing competition and the entry of new players into the QR payment landscape, promotional benefits have become important for adoption.

3. Research Methodology

3.1. Proposed Research Model and Hypotheses

The model used includes the UTAUT research model, which is added with the variable perceived risk, perceived trust, perceived regulatory support, and promotional benefits. It can be seen in Figure 1.

The hypothesis in this study uses the constructs of the modified UTAUT model. These constructs are linked and form the following hypothesis.

H1: *Performance expectancy significantly affects behavior Intention.*

H1A: *Effect of performance expectancy behavior intention moderated by age.*

H2: *Effort expectancy significantly affects behavior Intention.*

H2A: *Effect of effort expectancy on behavioral intention moderated by age.*

H2B: *Effect of effort expectancy on behavioral intention moderated by experience.*

H3: *Social influence significantly affects behavior intention.*

H3A: *Effect of social influence on behavior intention moderated by age.*

H4: *Facilitating condition significantly affects behavior intention.*

H5: *Perceived risk significantly affects behavioral intention*

H6: *Perceived trust significantly affects behavioral intention.*

H7: *Perceived regulatory support significantly affects behavioral intention.*

H8: *Promotional benefits significantly affects behavioral intention.*

3.2. Data Gathering

The population of users is 295,961 throughout Indonesia. The sample to be used in this study was obtained using the minimum research sample size formula by Slovin with a predetermined error margin of 5% and a target significance level of 90% – 95%, along with the sample obtained. It is computed as $n = N / (1 + Ne^2)$ whereas n = no. of samples, N = total population, and e = error margin/margin of error. With the calculation of Slovin, the number of samples obtained is 400 people (results are rounded up). Questionnaires distributed to selected users were designed to represent the variables in this study.

3.3. Analysis Methodology

In the distribution of the questionnaire, to ensure that the questions in the questionnaire can be understood and

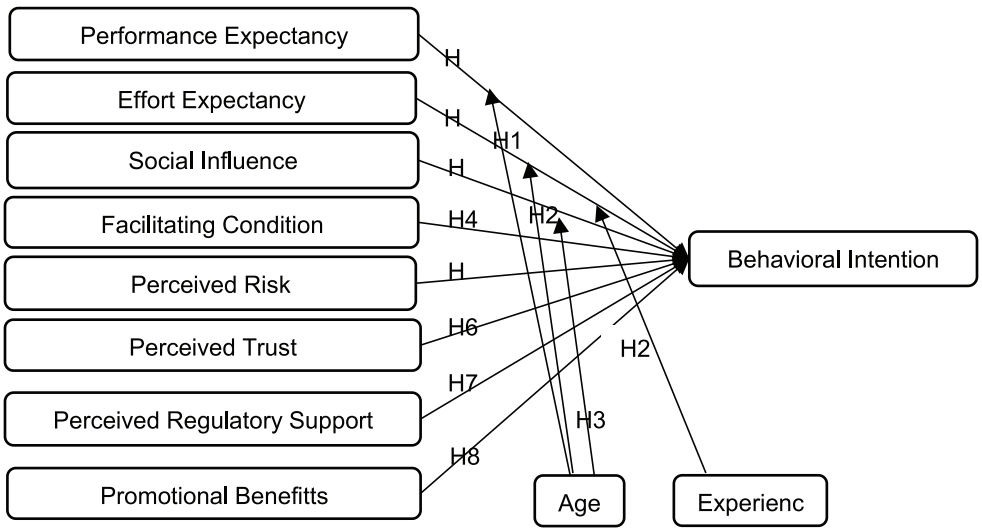

Figure 1: Research Model

not cause difficulties for the respondent to answer, the questionnaire was distributed in advance to some respondents in small amounts as a pre-test questionnaire.

Broadly speaking, there are two types of SEM methods, namely variance which includes Partial Least Square (PLS) and Generalized Structural Component Analysis (GSCA). This study will use a variance-based SEM method with PLS.

3.3.1. Validity Test

The validity test is used to whether the data (in the questionnaire) is valid or not (Khalid et al., 2012). The validity test will be declared valid if the results of the questionnaire meet the criteria of the variables tested in the study. The standard factor loading value is above 0.7, which is better than 0.5 (Gefen et al., 2000). AVE value will be accepted if it has a value of more than 0.5 (Fornell & Larcker, 1981).

3.3.2. Reliability Test

The reliability test in this study uses Cronbach's Alpha calculation, which can be concluded:

If alpha is in the numbers 0.7–0.9, then the reliability is high. In this study, the validity test and reliability test will be carried out using Smart PLS Software.

3.3.3. Structural Model Evaluation

The coefficient of determination, also known as R^2, is a measure of the model's predictive accuracy. Another way to look at R^2 is that it represents the combined effects of the exogenous variables on endogenous variables. In the analysis process, the T Statistics value is the significance of the relationship between the independent variable and the dependent variable. The relationship between these variables is declared significant if the T statistic value > 1.964 and P-value < 0.05.

4. Results and Discussion

4.1. Validity and Reliability

Table 1 is the calculation result of cross-loading and Table 2 shows the Average Variance Extracted (AVE) value of each variable.

Table 1: Loading Factor

Variable / Indicator	Loading Factor	Limit Value	Result	Variable / Indicator	Loading Factor	Limit Value	Result
Performance Expectancy				Perceived Trust			
PE1	0.907	0.700	Valid	PT1	0.904	0.700	Valid
PE2	0.910	0.700	Valid	PT2	0.900	0.700	Valid
Effort Expectancy				Perceived Regulatory Support			
EE1	0.884	0.700	Valid	PRS1	0.963	0.700	Valid
EE2	0.923	0.700	Valid	PRS2	0.956	0.700	Valid
EE3	0.884	0.700	Valid	Promotional Benefits			
Social Influence				PB1	0.921	0.700	Valid
SI1	0.891	0.700	Valid	PB2	0.939	0.700	Valid
SI2	0.925	0.700	Valid	Behavioral Intention			
Facilitating Conditions				BI1	0.898	0.700	Valid
FC1	0.821	0.700	Valid	BI2	0.956	0.700	Valid
FC2	0.815	0.700	Valid	BI3	0.914	0.700	Valid
FC3	0.837	0.700	Valid	Moderate Variable			
Perceived Risk				PE x UA	1.050	0.700	Valid
PR1	0.976	0.700	Valid	EE x UA	1.165	0.700	Valid
PR2	0.979	0.700	Valid	EE x UE	1.050	0.700	Valid
				SI x UA	0.983	0.700	Valid

Regarding the AVE value, it can be seen that all indicators have an AVE value above the coefficient so that it is declared valid to measure the existing variables. Table 3 is the result of the reliability test. Testing reliability is done by looking at Cronbach's alpha test results and composite reliability. A variable is reliable if its Cronbach's Alpha and Composite Reliability values are above 0.5. In this study, every variable is reliable as Cronbach's Alpha and Composite Reliability results are above 0.5.

Table 2: Average Variance Extracted (AVE) Analysis Result

Variable	AVE	Limit Value	Result
Performance Expectancy	0.830	0.500	Valid
Effort Expectancy	0.805	0.500	Valid
Social Influence	0.838	0.500	Valid
Facilitating Conditions	0.691	0.500	Valid
Perceived Risk	0.949	0.500	Valid
Perceived Trust	0.822	0.500	Valid
Perceived Regulatory Support	0.914	0.500	Valid
Promotional Benefits	0.875	0.500	Valid
Behavioral Intention	0.852	0.500	Valid
PE Moderate by Age	1.000	0.500	Valid
EE Moderate by Age	1.000	0.500	Valid
EE Moderate by Ex	1.000	0.500	Valid
SI Moderate by Age	1.000	0.500	Valid

4.2. Hypothesis Analysis and Theoretical Implication

The results of calculating the hypothesis can be seen in Figure 2 where the hypothesis is accepted if the *p*-value is less than 0.5 and the *t*-statistic is over 1.96. Based on the results of previous research conducted by Herlambang and Dewanti (2018), it was found that Performance Expectancy (PE) had an effect on customer interest in using the system. However, in this study, different results were obtained where system performance had no effect on the user interest with a value of 0,040 and *p*-value 0.446. Likewise, the analysis of Performance Expectancy (PE) is moderated by age with a value of 0.209. It was found that H1 did not affect but H1A did, which is another hypothesis that is moderated by age with *p*-value of 0.005. This indicates that customers of various age levels influence the use of the QR payment feature because of the benefits of the QR feature in making transactions.

The results of this study indicate that Effort Expectancy has no significant effect on the user interest with a value of 0.114 and *p*-value 0.002 and H2 is accepted. The results of Effort Expectancy which is moderated by Experience also have no effect on the user interest with a value of –0.016 and *p*-value 0.538, and H2B is rejected. However, different things can be seen from the results of Effort Expectancy which is moderated by age with a value of –0.164 and *p*-value 0.006 so that H2A is accepted. This shows that the ease of using QR payments does not affect user interest even though users already have experience using QR payments. However, the ease of use may differ depending on the age of the user.

Table 3: Reliability Test Result

Variable	Cronbach's Alpha	Composite Reliability	Result
Performance Expectancy	0.844	0.927	Reliable
Effort Expectancy	0.879	0.925	Reliable
Social Influence	0.790	0.907	Reliable
Facilitating Conditions	0.778	0.861	Reliable
Perceived Risk	0.951	0.977	Reliable
Perceived Trust	0.781	0.883	Reliable
Perceived Regulatory Support	0.906	0.956	Reliable
Promotional Benefits	0.857	0.926	Reliable
Behavioral Intention	0.906	0.947	Reliable
PE Moderate by Age	1.000	1.000	Reliable
EE Moderate by Age	1.000	1.000	Reliable
EE Moderate by Ex	1.000	1.000	Reliable
SI Moderate by Age	1.000	1.000	Reliable

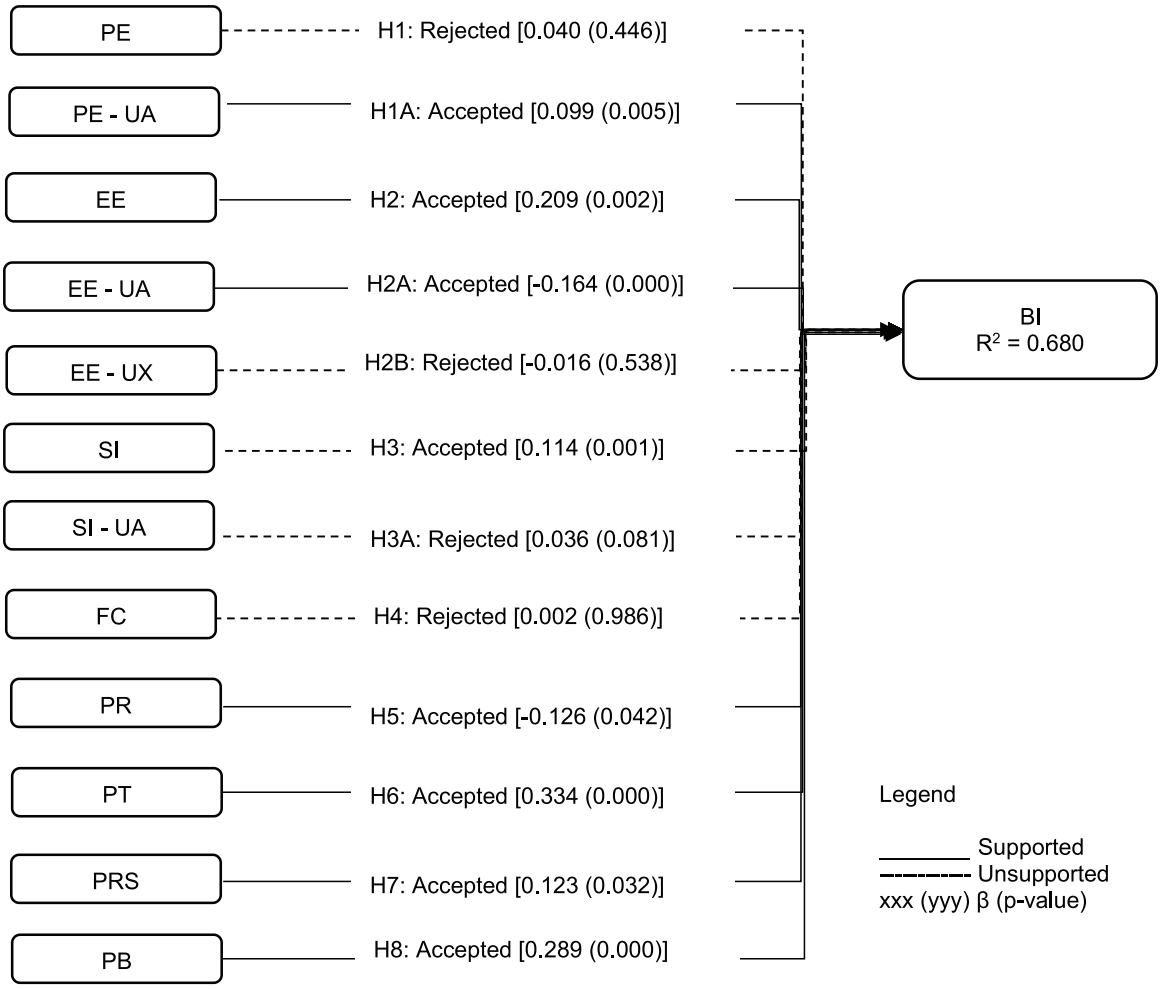

Figure 2: Structural Model

The results of this study indicate that Social Influence has a significant effect on the user interest with a value of 0.114 and *p*-value 0.001 and H3 is accepted. This indicates that the surrounding environment's influence affects customers' interest in using the system, similar to research conducted by Wardani and Hidayatullah (2018). The results of Age-moderated Social Influence indicate that the influence of the environment has a similar impact at all age levels with a value of 0.036 and *p*-value 0,081 and H3A is rejected.

The results of this study indicate that Facilitating Condition has no effect on the user interest with a value of 0.002 and *p*-value 0.986, and H4 is rejected. The results indicate that technical and organizational support has not increased customer interest in using QR payments.

The results of this study indicate that Perceived Risk does not have a significant effect on Behavioral Intention with a value of –0.126 and *p*-value 0.042 and H5 is rejected. The results showed that the risk in using the system affects customer interest in using the system.

The results of this study indicate that Perceived Trust has a significant effect on Behavioral Intention with a value of 0.334 and *p*-value 0.000 and H6 is accepted. The results indicate that trust in the QR payment system affects customers' interest in using the system.

The results of this study indicate that Perceived Regulatory Support does not have a significant effect on Behavioral Intention with a value of 0.123 and *p*-value 0.032, and H7 is rejected. These results indicate that efficient and sound rules and regulations have no effect on user interest.

Based on the research results, it was found that Promotional Benefits has a significant effect on Behavioral Intention with a value of 0.289 and *p*-value 0.000, and H8 is accepted. This shows that benefits such as price discounts, cashback and loyalty points affect user interest. This is in

accordance with a research by Madan and Yadav (2016) who showed Promotional Benefits have an effect on user interests. The results of the hypothesis in the study can be seen in Table 4.

4.3. Practical Implication

Based on the results that show the strong influence of the Effort Expectancy, Social Influence, Perceived Risk, Perceived Trust, Perceived Regulatory Support, and Promotional Benefits variables on Behavioral Intention, a better strategy needs to be developed by companies to increase customer interest in QR payments.

In this research, hypothesis testing shows that the relationship between Performance Expectancy and Behavioral Intention moderated by age, has a significant effect and H1A is accepted. The reliability of the QR payment system and user interest is influenced by the user's age. Effort Expectancy has a significant effect on user interest and H2 is accepted. The ease of using the QR payment system affects user interest. The convenience that is expected from a QR payment system is that it is easy to make payments and it does not take a lot of effort to use. The relationship between Effort Expectancy and Behavioral Intention with Age moderated had a significant effect and H2A was accepted. This indicates that the user's age has an influence on the ease of using QR payments on behavioral intention. Social Influence has a significant influence on behavioral intention and provides acceptable H3 results. This finding indicates that social influence affects user interest in QR payment systems. The expected social influence is the influence and suggestions from people around the user. The introduction of QR payments needs to be improved for customers by creating trends that have an impact on customers' habits to use QR payments and influence each other.

Besides, hypothesis testing also shows that perceived risk has a significant effect on behavioral intention and H5 is accepted. This indicates that it is very important for companies to protect customer data and transactions. In developing QR payments, developers need to ensure data transmission is always protected and if there is an error in the connection or a problem with the device, customer money or other data is protected. Perceived trust has a significant effect on user interest and H6 is accepted. User trust in the QR payment system will affect user interest. The trust that QR payment system users expect is trust in the system and trust with low risk.

Perceived Regulatory Support variable has a significant effect on user interest and H7 is accepted. Support from regulations affects the interest of QR payment users. The regulatory support that is expected is support for making QR payments and support for protecting QR payment transactions. Promotional Benefits have a significant effect on user interest and H8 is accepted. This discovery indicates that in QR payments, it is very important to increase promotional offers such as discounts at various merchants and cashback for making QR payments. Promotions need to be improved and notified to customers via banners or notifications on the mobile banking application page.

Table 4: Hypothesis Overall Results

Variable		*H*	Original Sample (O)	*T*-Table	T Statistics (|O/STDEV|)	*P* Values	Result
Behaviour Intention (R^2 = 0.680)	Performance Expectancy	H1	0.040	1.96	0.763	0.446	Rejected
	Performance Expectancy Moderate by Age	H1A	0.099	1.96	2.820	0.005	Accepted
	Effort Expectancy	H2	0.209	1.96	3.184	0.002	Accepted
	Effort Expectancy Moderate by Age	H2A	–0.164	1.96	4.388	0.000	Accepted
	Effort Expectancy Moderate by Age	H2B	–0.016	1.96	0.617	0.538	Rejected
	Social Influence	H3	0.114	1.96	3.222	0.001	Accepted
	Social Influence Moderate by Age	H3A	0.036	1.96	1.751	0.081	Rejected
	Facilitating Condition	H4	0.002	1.96	0.018	0.986	Rejected
	Perceived Risk	H5	–0.126	1.96	2.035	0.042	Accepted
	Perceived Trust	H6	0.334	1.96	4.529	0.000	Accepted
	Perceived Regulatory Support	H7	0.123	1.96	2.146	0.032	Accepted
	Promotional Benefits	H8	0.289	1.96	4.747	0.000	Accepted

5. Conclusion

The interest of QR payment system users is very much influenced by several factors, where these factors depend on the circumstances in which the system is implemented. To determine the influencing factors, factor analysis is needed by proposing several hypotheses on the theoretical factors that are considered to affect user interest. The results of data processing show that the effect of Performance Expectancy on Behavioral Intention is moderated by Age. Effort Expectancy is also moderated by Age. Social Influence, Perceived Risk, Perceived Trust, Perceived Regulatory Support, and Promotional Benefits have a significant effect on the interest of users of QR payments belonging to Sinarmas bank.

Performance Expectancy and Facilitating Condition factors do not have a significant effect on user interest in QR payments. Age-moderated Performance Expectancy and Age-moderated Effort Expectancy have a significant effect on user interest. The Effort Expectancy factor which is moderated by Experience and Social Influence which is moderated by age does not significantly influence the interest in using QR payments. Along with the number of QR payment service providers and the increasing number of merchants who provide QR payments, it is necessary to focus on increasing promotional benefits by increasing promotions with merchants. Besides, banks also need to create a strong social influence between customers to invite each other to use QR payments.

It is necessary to do research that compares users' interests in QR payments from e-commerce who have already been successful in promoting QR payments. Future research can add variables that support promotional benefits to find out what types of promotions have the most effect.

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Appendixes

Appendix 1: Measurement Indicator

Performance Expectancy

1. Using the system makes my job faster. (Venkatesh et al., 2012).
2. Using the system makes my job easier. (Venkatesh et al., 2012).

Effort Expectancy

1. Easy to use the system to do what the user intends to do. (Venkatesh et al., 2012).
2. Learning how to operate the system is easy. (Venkatesh et al., 2012).
3. The system is easy to use. (Venkatesh et al., 2012).

Social Influence

1. People who influence me recommend that I use the system. (Venkatesh et al., 2012).
2. People closest to me suggested using the system. (Venkatesh et al., 2012).

Facilitating Condition

1. There is a guide for me on how to use the system. (Venkatesh et al., 2012).
2. Have some knowledge about how to use the system. (Venkatesh et al., 2012).
3. Have the device to use the system. (Venkatesh et al., 2012).

Perceived Risk

1. Transaction data is maintained using the system. (Thakur & Srivastava, 2014).

2. Personal data is protected using the system. (Thakur & Srivastava, 2014).

Perceived Trust

1. Believe the system provides accurate information (Madan & Yadav, 2016).
2. Believe in the low risk of using the system (Madan & Yadav, 2016).

Perceived Regulatory Support

1. Regulations allow me to use the system (Madan & Yadav, 2016).
2. Believe there are regulations protecting me from using the system. (Madan & Yadav, 2016).

Promotional Benefits

1. Use the system because of the advantages it provides (Madan & Yadav, 2016).
2. High profit got my attention using the system (Madan & Yadav, 2016).

Behavioral Intentions

1. Intend to use the system at a later date (Venkatesh et al., 2012).
2. Will use the system for daily activities (Venkatesh et al., 2012).
3. Plan to use the system frequently (Venkatesh et al., 2012).

Appendix 2: Cross Loading Analysis Result

Indicator	PE	EE	SI	FC	PR	PT	PRS	PB	BI	Moderation 1	Moderation 2		Moderation 3
										PE-Age	EE-Age	EE-UX	SI-Age
(PE1)	0.907	0.564	0.258	0.549	0.392	0.39	0.379	0.412	0.451	0.404	0.256	–0.074	0.172
(PE2)	0.91	0.602	0.270	0.525	0.409	0.406	0.442	0.419	0.458	0.448	0.247	–0.086	0.187
(EE1)	0.586	0.884	0.306	0.654	0.541	0.54	0.478	0.456	0.531	0.293	0.368	0	0.227
(EE2)	0.569	0.923	0.400	0.594	0.492	0.619	0.593	0.505	0.586	0.227	0.353	–0.029	0.191
(EE3)	0.576	0.884	0.349	0.600	0.525	0.571	0.512	0.452	0.533	0.246	0.361	–0.013	0.197
(SI1)	0.236	0.290	0.891	0.457	0.417	0.506	0.377	0.289	0.432	0.164	0.156	0.081	0.04
(SI2)	0.289	0.415	0.925	0.572	0.494	0.635	0.44	0.404	0.515	0.152	0.197	0.107	0.136
(FC1)	0.468	0.514	0.592	0.821	0.571	0.647	0.527	0.491	0.559	0.259	0.271	0.078	0.156
(FC2)	0.501	0.592	0.353	0.815	0.399	0.487	0.369	0.508	0.419	0.258	0.31	0.101	0.217
(FC3)	0.499	0.597	0.438	0.837	0.486	0.562	0.426	0.523	0.525	0.274	0.319	0.071	0.22
(PR1)	0.446	0.569	0.487	0.594	0.976	0.679	0.666	0.457	0.492	0.287	0.305	0.066	0.191
(PR2)	0.418	0.56	0.499	0.575	0.979	0.735	0.702	0.494	0.524	0.262	0.303	0.11	0.142
(PT1)	0.512	0.692	0.502	0.717	0.656	0.904	0.613	0.655	0.667	0.155	0.253	0.075	0.222
(PT2)	0.276	0.467	0.642	0.533	0.651	0.9	0.745	0.475	0.653	0.141	0.153	0.067	0.051
(PRS1)	0.430	0.579	0.444	0.534	0.661	0.77	0.963	0.509	0.639	0.242	0.181	0.035	0.12
(PRS2)	0.438	0.553	0.423	0.506	0.685	0.668	0.956	0.545	0.585	0.193	0.213	0.082	0.158
(PRS2)	0.438	0.553	0.423	0.506	0.685	0.668	0.956	0.545	0.585	0.193	0.213	0.082	0.158
(PB1)	0.400	0.485	0.281	0.522	0.386	0.536	0.471	0.921	0.588	0.11	0.146	0.028	0.182
(PB2)	0.448	0.492	0.429	0.615	0.511	0.627	0.545	0.939	0.665	0.21	0.161	0.067	0.187
(BI1)	0.485	0.571	0.463	0.583	0.504	0.665	0.606	0.641	0.898	0.218	0.139	–0.01	0.177
(BI2)	0.443	0.557	0.53	0.562	0.463	0.695	0.6	0.605	0.956	0.179	0.115	0.018	0.14
(BI3)	0.458	0.572	0.459	0.560	0.474	0.666	0.565	0.628	0.914	0.169	0.092	0.004	0.134
PE * Age	0.470	0.283	0.174	0.320	0.281	0.164	0.228	0.175	0.205	1	0.635	–0.085	0.264
EE * Age	0.277	0.402	0.196	0.362	0.311	0.226	0.205	0.165	0.125	0.635	1	0.123	0.416
EE * UX	–0.088	–0.016	0.104	0.100	0.091	0.079	0.06	0.052	0.004	–0.085	0.123	1	0.082
SI * Age	0.197	0.228	0.102	0.237	0.17	0.152	0.144	0.199	0.163	0.264	0.416	0.082	1