FACTORS INFLUENCING THE USE OF QRIS IN DIGITAL TRANSACTIONS

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Abstract:

Background: QRIS as a payment method through QR codes has emerged as one of the products initiated by the implementation of the Indonesian Payment System Blueprint (SPI).

Purpose: The purpose of QRIS is to expand the efficient acceptance of non-cash payments, focusing on traditional mass economic functions (such as traditional markets and MSMEs).

Design/methodology/approach: The analysis in this research utilized Partial Least Square Equation Modeling (PLS-SEM).

Findings/Result: The results indicate that habit and hedonic motivation variables have a significant positive influence on behavioral intention, while usage barriers have a significant negative impact on behavioral intention. Furthermore, habit and facilitating conditions variables have a significant positive impact on use behavior.

Conclusion: The findings highlight that the decision to use QRIS is largely habitual, influenced by prior experiences and quick decision-making (Hedonic Motivation) at the point of transaction. The decision-making process is no longer lengthy, as QR-based payment systems were already familiar before QRIS implementation in Indonesia.

Originality/value (State of the art): The approach of simultaneously measuring acceptance factors and barriers is still rarely employed in technology adoption studies. Evaluating both factors concurrently can provide a more comprehensive assessment of the technology adoption process.

Keywords: UTAUT 2, IRT, digital transaction, QRIS, technology acceptance

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INTRODUCTION

The development of the digital era has influenced people's interest in using the internet. According to a survey conducted by the Association of Indonesian Internet Service Providers (APJII), there were 210.03 million internet users in the country during the 2021-2022 period, with a penetration rate of 77.02%. This figure increased by 6.78% compared to the 2019-2020 period, which totaled 196.7 million people (Dimas, 2022). Society is increasingly reliant on products and services provided through digital platforms, including shopping activities. Moreover, the COVID-19 pandemic has influenced changes in people's shopping behavior due to the limited mobility of the public in conducting face-to-face activities. PwC's research also indicates that 86% of consumers who shopped online during the pandemic plan to continue doing so even after social restrictions are lifted (PwC Indonesia, 2020). The increasing preference for online shopping and the ease of using digital payment systems have led people to start using Electronic Money (UE) in their shopping activities. The transaction value of UE in the third quarter of 2022 increased by 41.93% annually to 110.4 trillion Rupiah (ASPI, 2022).

In Indonesia, UE is categorized based on its storage media, namely server-based and chip-based. BI's data shows that the ownership of server-based UE accounts in Indonesia reached 540 million units in 2022, accounting for 87% of the total UE storage media used. One factor driving the high usage of server-based UE is the emergence of the Quick Response Code Indonesian Standard (QRIS). Until August 2022, there were 91.7 million transactions with a yearly increase of 79.8%, and the transaction value reached Rp 9.66 trillion, experiencing a 360% annual increase (Ahdiyat, 2022). QRIS, as a payment method using QR codes, emerged as one of the initiatives of the implementation of the Indonesian Payment System (SPI) blueprint. The SPI implementation initiative aims to provide access to 91.3 million unbanked populations and 62.9 million Micro, Small, and Medium Enterprises (MSMEs) in the formal financial sector sustainably (BI, 2019). Another potential development is the use of QRIS to facilitate all UE transaction activities. In the third quarter of 2022, the transaction volume of QRIS could only cover 10% of the total UE transactions in Indonesia, amounting to 173.19 million transactions.

A challenge in implementing QRIS as the national digital payment system is related to data protection. One issue faced is the emergence of fake QR codes, which could lead to the theft of user identities related to Personal Identification Numbers (PINs) (Setyowati, 2018). Banks and financial institutions hold 67.2% of personal data ownership. The growth of integrated digital payments with digital banking becomes a consideration for people in using them (Rizki, 2022). Other issues that could hinder the acceptance or use of QRIS include difficulties in topping up, errors in applications, and suboptimal use of QR codes in transactions conducted in areas with poor signals (Suryanto, 2019). A survey by Aftech concluded that three crucial aspects of protection are privacy and data security (89%), reliability (66%), and transparency (59%) (Dessy, 2022).

Several studies on the adoption of technological innovations, still place 'intention to adopt' and 'resistance to adopt' in different research constructs (Laumer and Eckhardt, 2010). Studies that solely focus on 'intention to adopt' may find it challenging to explain the negative aspects of innovation that could arise and only concentrate on the positive aspects of technology acceptance (Cornescu and Adam, 2013; Laukkanen, 2016). This research aims to analyze factors influencing the use of QRIS, both from the positive aspect using the UTAUT2 approach and the negative aspect using the IRT approach. Both approaches are used so that in the future development stages of QRIS, it can provide additional benefits without neglecting the quality it already possesses.Top of FormTop of Form

METHODS

This research was conducted from January 2023 to December 2023. The questionnaire data collection took place from January to July 2023, followed by data processing until August 2023. The research approach employed in this study is quantitative research. It utilizes primary data obtained through the online distribution of questionnaires and secondary data derived from literature related to the research. The sampling method in this research includes users of QRIS in the last 6 months, individuals with mobile banking, digital banking, or e-wallet accounts, residing in Jakarta, West Java, Central Java, East Java, and Yogyakarta. The sampling technique used in this study is non-probability purposive sampling. The total number of

respondents in this research is 314, obtained through an online survey method. The analytical instrument in this study employs the Partial Least Squares Structural Equation Modeling (SEM PLS) analysis model.

The Influence of Performance Expectation on Behavioral Intention

Performance expectations are depicted as a level of trust in consumers in the use of technology, where use can give advantages and convenience for themselves. Consumers tend to respond positively to using a method that provides profit for satisfaction and performance. Research by Iskandar et al. (2020) and Farah et al. (2018) regarding the behavior use of mobile banking with the UTAUT 2 approach explains that performance expectations have a significant effect in influencing behavioral intention. H1 : Performance Expectancy has influence on Behavioral Intention.

The Influence of Effort Expectancy on Behavioral Intention

The expectation of the effort consumers require to use technology describes the level of perceived ease in terms of efficiency and how much effort is required to use the technology. Having an attitude toward easy accepting services like mobile banking, will tend To influence users and respond positively to behavioral intention. The influence of effort expectancy on behavioral intention in connection with adoption technology has been proven by research previously (Gupta et al. 2019; Hiya, 2017). H2: Effort expectancy has influence on Behavioral Intention.

The Influence of Social Influence on Behavioral Intention

According to Nugroho et al. (2017), the use of new technology can be influenced by environmental factors such as friends, family, or colleagues who have previously used it. Osatuyi and Turel (2019) added that attitudes influenced by the social environment are a way to be accepted by the group or social norms one follows. Previous research also shows that social influence is one of the important factors influencing technology adoption (Kunz and Satomier, 2020; Talukder et al. 2019). H3: Social Influence has influence on Behavioral Intention.

The Influence of Facilitating Conditions on Behavioral Intention

Facilitating Conditions is trusting consumers about the existing infrastructure, technical support and walking system. Infrastructure technical influenced by scientific knowledge, environment, and limitations source Power in applying technology. Based on the idea, the foundational construct is to understand customers' perceptions regarding the availability of the necessary power source to engage in a behavior-specific activity (Chen and Lin, 2019). Tamilselvi and Balaji (2019) argue that facilitating conditions have a significant influence on behavioral intention in the adoption of mobile banking in India. H4: Facilitating Conditions has influence on Behavioral Intention

The Influence of Motivation on Behavioral Intention

Ventakesh et al. (2012) explain that hedonic motivation is the level of preference or satisfaction that arises from using an innovation, such as a mobile banking application. Alalwan et al. (2017) found an influence between hedonic motivation and behavior intention on mobile adoption banking among consumers in Jordan. Furthermore, Mufingatun and Prijanto (2020) found the same thing in the attitudes of mobile users banking in Indonesia. H5: Hedonic Motivation has influence on Behavioral Intention.

The Influence of Habits on Behavioral Intention

Habits show about trend consumer For use of automated technology, because has learned previously. There is a significant influence between the habits of consumers and the use of technology resulting from increasingly fast and varied change environments (Venkatesh et al. 2012). Results of a study previously about behavioral intention to use mobile banking in groups of students show that habits have a significant influence on behavioral intention (Septiani et al. 2017). Win et al. (2021) also found that similar to the behavioral intention of mobile banking users in Myanmar, there is a significant influence between habit and behavioral intention. H6: Habit has influence on Behavioral Intention

The Influence of Usage Barrier on Behavioral Intention

Usage Barrier (UB) appears when consumers feel that innovation from a newly implemented system does not align with the current system regardless of the practice or habits of the people who use it (Ram and Sheth, 1989; Laukkanen et al. 2009). Based on a study previously, UB had a negative influence on behavioral intention in some activities like online shopping, mobile gaming, mobile commerce, mobile services, mobile banking and mobile payment systems (Kaur et al. 2020). H7: Usage Barrier has has negative influence on Behavioral Intention

The Influence of Risk Barrier on Behavioral Intention

Perceived risk is important as a catalyst in many transaction finances in a way online. If consumers find a difference in what they expect with their get, then perceived risk will appear as a mark subjective from perceived uncertainty (Kesharwani and Bisht, 2021). In the case of using innovation from the transactions in a way online, there are possible risks perceived by consumers, i.e., risks that are psychological, financial, social, or physical (Forsythe and Shi, 2003). Mehrad and Mohammadi (2017), in their research about the use of mobile banking in Iran, show that the risk perceived by the user service becomes a factor significantly influencing the usage of mobile banking. Septiani (2018) also shows this same result, where low-risk will impact positive behavioral intention on the use of digital banking genius by consumers of Generation Y. H8: Risk Barrie has negative influence on Behavioral Intention

The Influence of Value Barriers on Behavioral Intention

Value barriers refer to resistance to the inconsistency of existing system values, particularly in the context of the benefits offered (Kaur et al. 2020). Understanding value barriers specifically discusses how innovation can provide added value commensurate with the costs of using and studying it (Morar, 2013). Several studies have determined the relationship between user attitudes and resistance, adoption, and use of various digital services. Value barriers have a negative relationship with user intentions in various contexts, such as online shopping, mobile gaming, mobile commerce, mobile services, mobile baking, and mobile payment systems; based on this, the following hypothesis is developed: H 9: Value barrier has negative influence on Behavioral Intention

The Influence of Image Barrier on Behavioral Intention

Image Barriers (IB) is a concept regarding technology acceptance that combines beliefs and feelings about the use of technology in general (Ferreira et al. 2014). There are different views on the influence of IB on the acceptance of technology. Research conducted by Soh et al. (2020) shows that IB does not influence people's desire to shop online, while research conducted by Sivathanu (2019) on digital payments shows that IB influences the emergence of resistance to innovation. H10: Image barrier has negative influence on behavioral intention

The Influence of Facilitating Conditions on Use Behavior

Liu et al. (2005) and Mahardika et al. (2019) explain facilitating conditions involves things that support the technical environment, such as program design, procedures, controls, regulations, policies, and legal rules that apply to ensure the security of data transmission and protection of confidential information. Robi et al. (2017) explain a significant relationship between the influence of facilitating conditions and the attitude of actual use. H11: Facilitating Conditions has influence on Use Behavior

The Influence of Habit on Use Behavior

The frequency with which old habits are frequently performed is considered one of the main determinants influencing habits in using similar applications (Ajzen, 1991). If behavior is usually carried out and often provides benefits as expected, then future behavior will be automatic (Gupta et al. 2019). Gupta and Dogra (2017) also show that habit significantly influences use behavior. H12: Habit has influence on Use Behavior

The Influence of Behavioral Intention on Use Behavior

Behavioral Intention indicates an individual's desire to use or adopt technology and is considered an important factor in determining technology acceptance (Raza et al.

2018). Use behavior is explained as a level of consumer attitude in using technology or systems; several studies operationalize use behavior as actual usage, which is influenced by the amount or frequency of use (Isaac et al. 2017). Research conducted by Iskandar et al. (2020) and Win et al. (2021) shows that behavioral intention has a relationship that influences user behavior in the acceptance of technology. H13 : Behavioral Intention has influence on Use Behavior

In this study, the variable Price Value (PV) is not utilized in the research on QRIS because there are no additional charges imposed on users of the service, similar to the study conducted by Sivathanu (2018). The Tradition Barrier (TB) variable is not included in this research because the use of QRIS in Indonesia has entered its second year, as found in the study by Kaur (2020), which concluded that TB does not have a significant impact as the innovation is no longer in the introduction phase.

RESULTS

Profile Respondent

The respondents in this research are Indonesian citizens residing in the Java Islands (DKI Jakarta, West Java, East Java, Central Java, DI Yogyakarta) who have conducted transactions in the last six months. The study involved 314 respondents, and their data were collected and screened through Google Forms. Male respondents dominated, constituting 54% or 170 people, while female respondents accounted for 46%, totaling 144 people. In terms of age, the majority, comprising 50% or 160 people, fell within the 24-39 year range (Millennials). This was followed by the age range of 17-23 years (Gen-Z) with 60 people (19%), the age range of 40-55 years with 51 people (16%), and the age range of 56-75 years with 46 people (15%). The respondents' education levels were divided into five groups: 16% with SMA, 4% with D3, 65% with S1, 15% with Masters, and 1% with S3. Regarding occupation, respondents were categorized as students, civil servants, employees, BUMN (state-owned enterprise) employees, entrepreneurs, and housewives. The largest job groups among respondents were private employees, constituting 32%, and students, constituting 23%. The respondents' domiciles were distributed across five regions: DKI Jakarta 47%, West Java 43%,

East Java 3%, Central Java 3%, and DI Yogyakarta. In terms of expenditure levels, 30% of respondents fell into the expenditure group of 1 million - 3 million, while 31% had expenditures above 5 million.

Evaluation of Model Fit Level

The evaluation of the model fit is conducted to assess whether the measurement tools used in this research are valid, reliable, or in line with established rule of thumbs. The process of evaluating the model fit in this study involves several stages of evaluation, namely convergent validity evaluation, discriminant validity evaluation, composite reliability, and evaluation of the inner model measurement. The assessment of convergent validity is done by considering the values of outer loading and average variance extracted (AVE). For the evaluation of discriminant validity, criteria such as Fornell-Larcker and cross-loading values are utilized. To measure the reliability level, one can examine the values of composite reliability and Cronbach's alpha. Meanwhile, the evaluation of the inner model is measured using the coefficient of determination R-square (R^2). Outer loading value, cross loading, AVE, composite reliability dan cronbach's alpha in Table 1.

Based on the evaluation of convergent validity, discriminant validity, composite reliability, and the inner model conducted, indicators SI1, FC2, and UBr3 were removed because these three variables had outer loading values less than 0.7, thus not meeting the criteria for further evaluation. Other variables and indicators, excluding the ones removed, are considered valid and reliable as they meet the rule of thumb in discriminant validity evaluation, where cross-loading values > 0.7, and they also meet the Fornell-Larcker criteria and composite reliability evaluation, where composite reliability values are greater than 0.7 and Cronbach's alpha values are greater than 0.6. In the evaluation of the inner model measurement, the R-square criteria for the endogenous latent variable "behavioral intention" is 0.661, and for "use behavior," it is 0.812 (Table 2). This implies that the exogenous variables can explain 66.1% of the variance in behavioral intention, with the remaining 33.9% explained by other variables outside the scope of this study. Furthermore, for use behavior, the exogenous variables in the study can explain 81.2%, while the remaining 18.8% is explained by variables outside the study.

Table 1. Outer Loading Value, Cross Loading, AVE, Composite Reliability dan Cronbach's Alpha

	Outer Loading	Cronbach's Alpha	Composite Reliability	(AVE)
PE1	0,863	0.825	0.896	0.742
PE2	0,896			
PE3	0,823			
EE1	0,882	0.816	0.890	0.730
EE2	0,802			
EE3	0.877			
SI1	0,689	0.711	0.873	0.775
SI2	0.895			
SI3	0.866			
FC1	0.965	0.919	0.961	0.925
FC2	0.959			
FC3	0,499			
HM1	0.942	0.825	0.918	0.849
HM2	0,900			
H1	0.921	0.856	0.913	0.777
H2	0,798			
H3	0.921			
UBr1	0,904	0.758	0.892	0.805
UBr2	0.891			
UBr3	0.547			
VB1	0.866	0.709	0.830	0.621
VB2	0.765			
VB3	0.728			
RB1	0,770	0.816	0.882	0.715
RB2	0.951			
RB3	0.805			
IB1	0.843	0.716	0.873	0.775
IB2	0.917			
BI1	0,910	0.932	0.952	0.831
BI2	0.927			
BI3	0.917			
BI4	0.891			
UB1	0,880	0.920	0.940	0.758
UB2	0.889			
UB3	0.821			
UB4	0.918			
UB5	0.841			

Table 2. R-Square value

Endogen Variable	R-Square	Adjusted R-Square
Behavioral Intention	0.661	0.650
Use Behaviour	0.812	0.810

Contribution Indicator to Variable

Contribution indicators can give information in a study about indicators that contribute most to each variable. The performance expectancy variable owns three indicators that explain it, with the contribution found on indicator X2 with a mark loading factor of 0.896, considering that QRIS can help finish transactions faster. Variable effort expectancy has three indicators that explain it, with the contribution found on the X4 indicator with a mark loading factor of 0.882, which considers QRIS as a tool payment easy to study and use. Variable social influence has three indicators that explain it, with the contribution found on the X8 indicator with a mark loading factor of 0.895, which considers that people in the environment respondents are seen as more practical when using QRIS. Variable facilitating conditions have three indicators that explain it, with the contribution found on the X10 indicator with a mark loading factor of 0.965, which considers that their smartphones was compatible to use QRIS. Variable hedonic motivation has two indicators that explain it, with the contribution found on the X13 indicator with a mark loading factor of 0.942, which considers that using QRIS as a transaction medium is something fun. Variable habit has three indicators that explain it, with the contribution found on the X17 indicator with a mark loading factor of 0.921, which considers that the use of QRIS has already become part of their routine.

Variables The usage barrier has two indicators that explain it, with the contribution found on the X18 indicator with a mark loading factor of 0.904, which considers that the QRIS is not easy to use. The variable value barrier has three indicators that explain it, with the contribution found on the X20 indicator with a mark loading factor of 0.866, which considers that the use of QRIS already Can replace function system payment previously. Variable risk barrier has three indicators that explain it, with the contribution found on the X24 indicator with a mark loading factor of 0.951, which considers the possibility of personal data being leaked when used. Variable The image barrier has two indicators that explain it, with the contribution found on the X27 indicator with a mark loading factor of 0.917, which considers payment via QRIS too complicated.

Variable behavioral intention has four indicators that explain it, with the contribution found on the X29 indicator with a mark loading factor of 0.927, which considers that QRIS will be used daily. Variable use behavior has five indicators that explain it, with the contribution found on the Y4 indicator with a mark loading factor of 0.927, which feels that will become loyal QRIS users.

Testing Hypothesis

Estimate coefficient track or path coefficient is an evaluation process to mark coefficient, influence real from mark bootstrapping, and magnitude mark coefficient. The bootstrapping process is a technique of random data recalculation to obtain t-statistical value. The stage furthermore tests a hypothesis by comparing t-statistical values with the t-table. Hypothesis accepted if t- statistical value > 1.96 at level significance 5%. PLS Bootstrapping model results in research This can seen in Table 3.

Performance Expectancy

Based on the statistical results, it was found that performance expectancy does not have a significant influence. Currently, QRIS in its function as a QR transaction medium does not provide new added value related to its performance. The current focus of QRIS innovation is to create financial service diversification to support the widespread digitalization of society, so the improvement related to QRIS performance does not differ much at present. The decision to use QRIS at present is classified as habitual decision making, where the consideration to use QRIS is no longer influenced by many considerations and is more based on habit (Hawkins and Mothersbaugh, 2010). Another factor supporting the results of this research hypothesis is that the performance of QRIS as a non-cash payment method does not provide additional value different from the previous non-cash payment system. This analysis is supported by Suchat et al. (2019) study, which revealed that the use of debit/credit cards remains the primary choice for non-cash transactions, so performance expectancy did not have a significant influence in that study. Gibbon (2022) also stated that performance expectancy has no significant influence on behavioral intention.

Table 4. Hypothesis test results

	Coefisien Value	T- Value	Significant Value	Result	Description
PE → BI_	0,019	0.258	0.797	Not Significant	Reject H1
EE → BI_	0,023	0.330	0.742	Not Significant	Reject H2
SI_ → BI_	0,084	1679	0.094	Not Significant	Reject H3
FC → BI_	-0,011	0.203	0.839	Not Significant	Reject H4
HM → BI_	0,152	2725	0.007	Significant	Accept H5
H → BI_	0,578	11082	0.000	Significant	Accept H6
UBr → BI_	-0,134	2112	0.035	Significant	Accept H7
VB → BI_	-0,037	0.879	0.380	Not Significant	Reject H8
RB → BI_	-0,001	0.027	0.979	Not Significant	Reject H9
IB → BI_	0,050	0.793	0.428	Not Significant	Reject H10
FC → UB_	0,092	3167	0.002	Significant	Accept H11
H → UB_	0,203	3919	0.000	Significant	Accept H12
BI_ → UB_	0,680	13638	0.000	Significant	Accept H13

Effort Expectancy

Based on the statistical results, it was found that effort expectancy does not have a significant influence. This is because QRIS is not the first alternative QR code payment system; QR code payments already existed before, making the adoption of QRIS easy for the public. The current use of QRIS, which is already in the stage of habitual decision making, makes the decision to use QRIS a routine in transactions, where the consideration of the ease it provides is not the main factor for the public. Technical evaluation variables in QRIS studies do not have a significant influence on the intention to use. This analysis is supported by Giacomo et al. (2021) study, which found that ease of use of QRIS is not a significant factor in determining attitudes toward using it. Gibbon (2022) also stated that effort expectancy has no significant influence on behavioral intention.

Social Influence

Based on the statistical results, it was found that social influence does not have a significant influence on behavioral intention. The influencing factor is the community's ability to receive information currently. In the case of QRIS, information about QRIS usage is mostly done independently. According to Giacomo et al. (2021), in groups of people with low technology acceptance levels, social influence becomes a major factor, while in areas with high technology acceptance levels, social influence does not significantly affect. At the current stage of QRIS usage, the impetus to use QRIS as a non-cash transaction medium is more based on internal factors, such as habits and previous usage experience. This analysis is supported by Giacomo et al. (2021) study, which found that social influence does not have a significant influence on behavioral intention, influenced by individuals' attitudes toward a technology.

Facilitating Condition

Based on the statistical results, it was found that facilitating condition does not have a significant influence. In this study, technical factors do not significantly influence the intention to use because QRIS transactions for respondents are currently a routine performed during transactions, especially for consumable goods. Yumei et al. (2012) explained that after an innovation is accepted and used, the decision to use the innovation is considered normal in transactions. This analysis is supported by Miftah (2017) and Gibbon (2017), which explain the lack of significant influence between facilitating condition and behavioral intention. In this study, a direct relationship was also found between facilitating condition and use behavior. Based on the statistical results, it was found that Facilitating Condition (FC) has a significant positive influence on Use Behavior (UB). This indicates that at the level of supporting facility conditions, both internally from its users and from QRIS as a facilitator, will positively influence the level of QRIS usage in their transaction activities. This analysis is supported by Jeddawi (2020), which found a significant influence between facilitating condition and use behavior in electronic

money usage. Furthermore, Gibbon (2022) found a significant influence between facilitating condition and use behavior.

Hedonic Motivation

Hedonic Motivation (HM) emerges as a variable that explains the pleasure and enjoyment obtained when using technology (Venkatesh, 2005). In the current use of QRIS, the motivation for behavior or attitude towards a technology is no longer based on its utility value but more on the pleasure or satisfaction it brings when someone uses it. The pleasure felt when using QRIS influences someone's intention to continue using it, and this feeling of pleasure, along with a person's habits, influences the intention of use. Lally et al. (2010) explained that individuals tend to choose things that are routinely done based on habits and the pleasure derived from these routines. This analysis is supported by Suchat et al. (2019) and Giacomo et al. (2021), who argue that hedonic motivation significantly influences behavioral intention. Furthermore, Irfan et al. (2022) and Sivahatnu (2018) found a significant relationship between hedonic motivation and people's decisions or attitudes in using a technology.

Habit

Habit has a significant influence on Behavioral Intention. Habit is formed from activities repeated over a long period, so decisions made about habitual things often do not require much consideration, even if there are other alternative choices. Ajzen (1991) argued that the frequency of long-standing habits often performed is considered one of the main determinants influencing the habit of using similar applications. This analysis is supported by Irfan et al. (2022) and Sivahatnu (2018), who also argue that habit significantly influences users' behavioral intentions. In this study, a direct relationship between habit and use behavior was also found. Based on statistical results, it was found that habit has a significant positive influence on use behavior. QRIS, which has integrated various QR code payment providers to transact through its medium without fees, provides convenience for non-cash transactions for the public. Another factor that makes QRIS better is its ability to facilitate various non-cash transactions that could not be done previously, adding value for people who are accustomed to using QR as their non-cash transaction medium. Suchat et al. (2019) found that comfort and satisfaction from previous experiences

influence consumers' decisions to use it regularly. This analysis is supported by Jeddawi (2020), who found a significant influence between facilitating condition and use behavior in electronic money usage.

Usage Barrier

Based on statistical results, it was found that usage barriers have a significant negative influence. This is because QRIS as a non-cash payment mechanism is easy to replace, so when there are problems using it, consumers will easily switch. Puneet et al. (2020) found that barriers to using digital financial applications are caused by complicated interfaces, confusing usage, and delays in transaction processes. The significant negative influence also indicates that the more often consumers experience obstacles, the higher their confidence to permanently switch and leave a negative impression, which can influence other users. Ahmad and Laroche (2017) found a relationship between usage barriers and E-WOM used as a medium for spreading information related to user experiences. This analysis is supported by Irfan et al. (2022) and Sivahatnu (2018), who stated that there is a significant negative influence between usage barriers and behavioral intention.

Value Barrier

Based on statistical results, it was found that the value barrier has a non-significant negative influence. This is because the use of QR as a non-cash transaction medium in Indonesia is not a new innovation; it explains that the acceptance of the value brought by QRIS to society has been felt even before QRIS existed. According to Ram and Seth (1989), when an innovation does not offer better performance or different value from previous alternatives, the innovation is unlikely to change user behavior. This analysis is supported by Giacomo et al. (2021) and Irfan et al. (2022), who stated that the value barrier does not have a significant influence on behavioral intention. Laukkanen (2016) believes that as long as the payment system used does not incur additional costs, the value barrier will not influence the decision to use it.

Risk Barrier

Based on statistical results, it was found that the risk barrier has a non-significant negative influence. This is because in this study, the risk barrier variable is described as risks related to digital security, such as

personal data security and hacking (financial account hijacking), rather than explaining technical risks related to usage, which is addressed by the significant results of the usage barrier variable on behavioral intention. Up to this point, the use of QRIS is still perceived as safe in facilitating transactions in terms of digital security because QRIS itself does not require an account or inputting various types of personal data before transactions, especially since QRIS utilization as a digital transaction medium is still mainly for transactions with relatively small amounts. This analysis is supported by Puneet Kaur's study (2020), which stated that the risk barrier has a non-significant influence on behavioral intention. Furthermore, research conducted by Giacomo et al. (2021) also found that there is no significant influence between the risk barrier and behavioral intention.

Image Barrier

The Image Barrier does not have a significant influence on Behavioral Intention. Research conducted by Tuire et al. (2007) explains that the Image Barrier arises in a group of users who do not have prior experience or are not accustomed to existing technology, thus creating a negative image towards the intention to use that technology. QRIS, which is presented as an enhancement of non-cash transaction methods via QR code, does not have significant differences in its technical usage. Therefore, when basic abilities or requirements (such as owning a digital financial account) are not met, there is a possibility that the Image Barrier can have a significant influence on Behavioral Intention. However, in this study where the majority of respondents are active users of digital financial services, the Image Barrier is not a variable that influences the decision regarding intention to use. Research conducted by Giacomo et al. (2021) found that the image barrier does not have a significant influence on behavioral intention, stating that if respondents surveyed have a high orientation towards technology, then the image barrier will not have a significant influence on the attitude to use. Furthermore, Puneet (2020) found a significant influence between the image barrier and behavioral intention.

Behavioral Intention

Based on statistical results, it was found that behavioral intention has a significant positive influence. In this study, it was found that the factors influencing people's intention to use QRIS are how QRIS can continue to align with the habit that has grown in society regarding the use of media in digital transactions, how QRIS can evoke pleasure when used, and how QRIS can handle technical issues that can affect user experience. Users' attitudes toward QRIS will affect the level of user loyalty and how QRIS is used in the future, serving as a foundation for improving QRIS's capabilities as a non-cash payment medium in Indonesia. This analysis is supported by Jeddawi's study (2020), which found a significant influence between facilitating conditions and use behavior in electronic money usage.

Managerial Implications

The decision to use QRIS in the current period falls under habitual decision-making, as the decision to adopt or use QRIS is influenced by habits (Habit) that have formed previously or quick decisions (Hedonic Motivation) made at the time of the transaction. At this stage, decision-making no longer requires lengthy considerations, as the use of QR-based payment systems has been in practice before the implementation of QRIS in Indonesia. The decision not to use QRIS is based on the success of the transaction process (Usage Barrier) and the extent to which QRIS can facilitate the public (Facilitating Condition).

The potential for developing QRIS to facilitate national non-cash transactions can still be further explored. One approach is to integrate non-cash payment systems that use UE chip-based technology, such as e-money, e-toll, and debit/credit cards. Meanwhile, in addressing the challenge of the unbanked and underbanked populations still prevalent in Indonesia, the government could integrate QRIS and banking agents as facilitators to enhance digital financial inclusion in regions where the adoption of digital finance is below average. QRIS plays a role in providing non-cash financial transaction systems by offering the convenience of utilizing devices owned by individuals. On the other hand, the banking agent approach to improving financial inclusion involves leveraging the communication and relationships built between agents and customers. The initiative of collaborating QRIS and banking agents can provide a suitable approach to addressing the challenges posed by the unbanked and underbanked populations in Indonesia. The hope is that the results of this collaboration will enhance digital financial inclusion for the community in the future.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the results of this research, the majority of respondents fall within the age group of 24-39 years, with most of them having income levels between IDR1,000,000 and IDR3,000,000 and above IDR5,000,000. The most common transaction amount using QRIS in this study is below IDR500,000. Respondents primarily acquire information about QRIS through the internet and from their relationships (friends/family). This indicates that the use of QRIS is still a small part of daily transactions for the public. Variables such as Habit, Hedonic Motivation, and Usage Barrier have a significant impact on Behavioral Intention. Meanwhile, Habit, Facilitating Condition, and Behavioral Intention significantly influence Use Behaviour. The highest loading factor in this study is found in the Facilitating Condition (FC) indicator.

The findings of this study provide further evidence of the reason people decide to use QRIS recently. The decision to use QRIS in the current period falls under habitual decision-making, as the decision to adopt or use QRIS is influenced by habits (Habit) that have formed previously or quick decisions (Hedonic Motivation) made at the time of the transaction. At this stage, decision-making no longer requires lengthy considerations, as the use of QR-based payment systems has been in practice before the implementation of QRIS in Indonesia.

Recommendations

As recommendations, these findings are expected to be a consideration for stakeholders to initiate efforts towards increasing the adoption of QRIS among more users. The potential for developing QRIS to facilitate national non-cash transactions can still be further explored. One approach is to integrate non-cash payment systems that use chip-based technology, such as e-money, e-toll, and debit/credit cards.Meanwhile, in addressing the challenge of the unbanked and underbanked populations still prevalent in Indonesia, the government could integrate QRIS with banking agents as facilitators to enhance digital financial inclusion in regions where the adoption of digital finance is below average. QRIS plays a role in providing non-cash financial transaction systems by offering the convenience of utilizing devices owned by individuals. On the other hand, the banking agent approach to improving financial inclusion involves leveraging the communication and relationships built between agents and customers.

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