

Generation Z's Decision to Use QRIS in Mataram City: UTAUT Model



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ABSTRACT: In Mataram City, West Nusa Tenggara, this study employs the Unified Theory of Acceptance and Use of Technology (UTAUT) paradigm to investigate the factors influencing Generation Z's adoption of the Quick Response Code Indonesian Standard (QRIS). Using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method, 128 participants were included in a quantitative analysis to examine how performance expectations, effort expectations, social influences, and facilitating conditions affect behavior and intentions when using QRIS. The findings indicate that performance expectancies, social influences, and environmental factors all have a significant impact on behavioral intentions, even when effort expectancies do not directly affect them. Furthermore, a noteworthy correlation was also observed among QRIS use, behavioral intents, and enabling situations. These results emphasize how crucial it is to address issues like social influence, performance expectations, and other motivators in order to promote Generation Z's adoption of QRIS in Mataram City and bolster Indonesia's digital payments ecosystem.

KEYWORDS: West Nusa Tenggara, Generation Z, Unified Theory of Acceptance and Use of Technology (UTAUT), Quick Response Code Indonesian Standard (QRIS), Partial Least Squares Structural Equation Modeling (PLS-SEM)

I. INTRODUCTION

At present, advances in financial technology, also known as Financial Technology, have undergone drastic changes. Financial technology (fintech) has significantly streamlined the process of accessing financial products and conducting transactions, enabling people to obtain financial services more conveniently and efficiently (Tohang et al., 2021). It has created new opportunities in various aspects of financial life, from digital banking to digital investment, which have become more affordable and accessible to the public. In addition, Financial Technology plays a role in improving the operational efficiency of financial institutions that serve consumers online, encouraging the development of innovative products, and contributing to increased accessibility of consumer financing (Yuqing et al., 2020). One of the Financial Technology that is growing rapidly in society is the *QR Code*. The Quick Response Indonesian Standard (QRIS), which serves as the nation's cashless payment platform, was launched on August 17, 2019, through a collaboration between Bank Indonesia and the Indonesian Payment System Association (ASPI). QRIS, which uses the EMVCo standard base, ensures connectivity between service providers and various payment methods. This feature also supports the use of QRIS across national borders, as EMVCo standards are commonly used internationally. In QRIS transactions, the source of funds used can be deposits or payment instruments such as debit cards, credit cards, or EU server-based methods (Bank Indonesia, 2019).

The establishment of QRIS by Bank Indonesia on 1 January 2020 as a payment system that focuses on providing simpler and more efficient cashless payment solutions (Nurhapsari & Sholihah, 2022), has brought significant positive impacts in the transformation of the payment ecosystem in Indonesia. In recent years, the rapid growth in the number of increasingly sophisticated smartphone users has strengthened the adoption trend of QRIS technology, unlocking the potential for rapid growth in digital payment transactions in Indonesia (Risma & Sri, 2021). Bank Indonesia reported that by June 2023, the number of merchants using QRIS reached 26.7 million, while the number of QRIS users reached 37 million. These figures account for 82% of the total user target of 45 million by 2023 (Bank Indonesia, 2019). There is currently no conclusive data regarding the use of QRIS non-cash payment instruments in West Nusa Tenggara Province. However, a partial picture related to information on the use of QRIS, namely data from Bank Indonesia, reveals that in June 2023 NTB Province has QRIS users reaching 293,823 users with transactions reaching 2,880,089 times and nominal transactions reaching Rp 329.57 billion. The use of QRIS in Mercant in NTB reached 238,753 merchants, with the largest population being in Mataram City at 70,891 merchants.

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The main user group that benefits from QRIS payment technology is businesses. QRIS has opened the door for businesses to participate in the digital payment ecosystem in an easier and more affordable way. QRIS adoption among businesses encourages consumers to use the cashless payment tool. With QRIS, businesses and consumers can easily accept payments through smartphones. In addition to increasing business operational efficiency, this enables customers to take advantage of the convenience of cashless shopping.

Generation Z as one of the consumers who likes to adopt the QRIS non-cash payment system due to the convenience of shopping and many merchants already provide QRIS. The use of cashless payment systems has become part of Generation Z's lifestyle and they have completely acquired the use of physical money (Aulia et al., 2023). Generation Z more often uses smartphones to make payments through digital payment applications or by using QR codes compared to using cash, which is considered outdated and less efficient.

However, the adoption of QRIS by consumers still has obstacles in the transaction process due to the limited infrastructure available (Rafferty & Fajar, 2022) and lack of understanding in using QRIS (Aryawati et al., 2022). On the other hand, the perception of the adoption of QRIS use by merchants has concerns because there is an assumption that the QRIS security system is not strong enough so they are worried that accounts and transactions can cause problems (Nurhapsari & Sholihah, 2022).

Thus, the purpose of this study was to demonstrate the favorable and noteworthy impact of four components from the Unified Theory of Acceptance and Use of Technology (UTAUT) model, which was created by Venkatesh et al. (2003), on the choice of QRIS for generation Z in Mataram City, West Nusa Tenggara Province. The four factors, namely performance expectations, effort expectations, social influences and conditions that influence behavioural intentions that will determine behavioural intentions, will then determine the behaviour of using the Quick Response Code Indonesian Standard (QRIS). The first component, performance expectations, outlines why utilizing a technology will result in better QRIS performance. The second factor is effort expectations, which are correlated with how user-friendly technology is. People are more likely to adopt and use technology positively and actively if it is simple to use (Venkatesh et al., 2012). People's intentions to use financial technology are strongly influenced by their level of effort expectations. The third factor, social influence, is the extent to which individuals feel that important people in their lives, such as family and friends, encourage them to use certain technologies (Venkatesh et al., 2012). This social influence can greatly affect individual attitudes and behaviour towards technology. Puriwat & Tripopsakul (2021) assert that behavioral intentions can be influenced by social influence. The fourth factor, influencing conditions, pertains to an individual's perception of the resources and support available to them in order to facilitate the implementation of a behavior or action (Venkatesh et al., 2012). According to Nuriska et al.'s (2018) analysis of trade intents with Go-Pay, facilitating conditions can have an impact on behavioral intentions.

II. LITERATURE REVIEW

A. Financial Technology

Financial technology, as defined by Bank Indonesia, refers to the utilization of technology within the financial sector that results in novel business models, services, products, and/or technology, which may impact the stability of the financial system, the money supply, and the effectiveness, security, and reliability of payment systems (Bank Indonesia, 2017). It enables financial transactions to occur without the necessity of a bank account. Despite not being a banking institution itself, Bank Indonesia regulates fintech to protect the interests of the general public and consumers. Fintech enterprises are required to register with either the Financial Services Authority or Bank Indonesia. Bank Indonesia suggests that fintech could potentially assume certain roles traditionally held by banks. Fintech has the potential to enhance business opportunities, facilitate more efficient investments, mitigate risks associated with conventional payment systems, and enable individuals and organizations to save, borrow, and engage in equity investments (Gunawan et al., 2023).

B. Quick Response Code Indonesia Standard

Using QR technology as a transaction mechanism, Bank Indonesia and the Indonesian Payment System Association (ASPI) introduced the QRIS (Quick Response Code Indonesia Standard) payment system. A QR code is a two-dimensional matrix sign made up of several square boxes stacked on top of one another to form a pattern of bigger boxes. Then, we refer to these big, square boxes as modules. The QR Code version will depend on how big this square box design is. A QR Code has a pattern structure that stores the data inside it and is made up of two square boxes: a big one and a tiny one (Lonardi & Legowo, 2021). In recent developments, there are two QR payment methods used (Bank Indonesia, 2019):

1. Merchant Presented Mode (MPM): The QR Code is presented by the merchant to the consumer, allowing the consumer to scan the QR. QRs can be static (unchanging) like a sticker or dynamic which can change and are usually printed through an EDC device or displayed by the merchant through an electronic device screen.

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2. Customer Presented Mode (CPM): The *QR Code* is displayed by the consumer, then scanned by the merchant. In this model, the *QR Code* is always dynamic because it is generated by the user every time they make a transaction.

Prior to the adoption of QRIS, cashless transactions required complicated preparations. Merchants had to provide multiple payment apps in their stores, and consumers had to ensure that their payment apps could be used at the merchant. However, after QRIS was introduced, the transaction process became simpler. Merchants only need to provide one QR Code in their stores. Consumers can easily make payments with various payment apps on their smartphones by scanning the QR Code. Thus, QRIS eases the cashless payment process by eliminating the need for multiple payment applications and providing convenience for both parties (Sihaloho et al., 2020). Bank Indonesia carries the theme "UNGGUL" in this QRIS introduction (Bank Indonesia, 2019). "UNGGUL" has the following meanings:

- a. *Universal*, QRIS can be used by various levels of society and applies both domestically and abroad.
- b. *Gampang*, QRIS transactions can be done easily and safely in one hand.
- c. *Untung*, QRIS is very efficient, as one QR code can be used for multiple payment applications.
- d. *Langsung*, QRIS payment system can be done quickly and instantly.

C. Generation Z

Generation Z is a group born between 1995 and 2012, growing up in an era that has been dominated by technological advances since birth (Hastini et al., 2020). They grew up with easy access to technology and the internet, which has become an integral component of their daily lives. In their view, technology and the internet are not just innovations, but have become an integral part of their daily routine.

In addition, with their high degree of technological engagement, Generation Z is seen as our society's future milestone. Research has indicated that their intention to use technology is crucial to the growth of the new financial technology industry (Dalimunte et al., 2019). According to data from the 2020 Population Census, Generation Z makes up the majority of Indonesians, making up approximately 74.93 million people, or 27.94% of the country's overall population of 270.2 million (Fadillah et al., 2021). The fast-paced advancement of technology in contemporary times has a noteworthy effect on the way of life of Generation Z, as they extensively depend on gadgets for numerous facets of their everyday routine.

D. Hypothesis

Venkatesh et al. (2003) conducted an empirical comparison of eight different models—Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model, Theory of Planned Behavior (TPB), Combined TAM and TPB (C-TAM-TPB), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT)—to gain a deeper understanding of technology adoption. Their study involved surveying 215 individuals from four distinct organizations. Subsequently, Venkatesh et al. (2003) amalgamated and refined these eight models to develop a novel model called UTAUT, based on their longitudinal research. UTAUT encompasses the essential components of the other models. Beyond elucidating the significant factors influencing both intention to adopt and actual adoption, UTAUT enables researchers to explore moderators that may amplify or diminish the impact of these critical factors. This study opted for UTAUT as the theoretical framework for formulating hypotheses, given its empirical validation and demonstrated superiority over competing models (Venkatesh et al., 2003; Venkatesh & Zhang, 2010).

1. Performance Expectation (PE)

Performance expectations are shaped by various factors such as perceived usefulness (in Technology Adoption Theory or TAM/TAM2), relative advantage (in Innovation Diffusion Theory or IDT), extrinsic motivation (in Motivation Model or MM), job suitability (in Conformance Theory or MPCU), and outcome expectations (in Attitude Formation Theory or SCT) within the framework of the Unified Technology Adoption Theory of Use (UTAUT). Lonardi & Legowo's (2021) study on the QRIS cashless payment system in DKI Jakarta illustrates that behavior intention is significantly influenced by performance expectancy. This notion that behavior intention and performance expectations are intertwined is also corroborated by other studies (Abu et al., 2015; Risma & Sri, 2021). Similarly, Puriwat & Tripopsakul (2021) found similar results in their examination of the use of social media for business in Thailand, indicating that behavioral intention is significantly impacted by performance expectations. In light of these findings, the study proposes the following theories:

H1 : performance expectation (PE) has a significant effect on the behavioural intention (BI) of generation Z using QRIS

2. Expected Effort (EE)

Venkatesh et al. (2003) defined effort expectancy as the level of ease associated with technology use, incorporating concepts such as perceived ease of use (in Technology Adoption Theory or TAM/TAM2), complexity (in PC Utilization Model or MPCU), and ease of use (in Innovation Diffusion Theory or IDT), in comparison to other competing models. Empirical research on the adoption of Quick Response Code for Indonesian Standard (QRIS) supports the idea that perceived simplicity of use significantly encourages

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adoption (Kadim & Sunardi, 2021; Lonardi & Legowo, 2021; Nurhapsari & Sholihah, 2022; Wiryawan et al., 2023). Drawing on studies by Shehata et al. (2023) and Khan et al. (2022), which explored variables influencing people's intentions to adopt financial technology within the Unified Technology Usage Adoption Theory (UTAUT) framework, this study proposes hypotheses. Both studies indicate that people's intentions to use financial technology are strongly influenced by their expectations regarding effort. Therefore, this study presents the following hypotheses based on UTAUT:

H2 : effort expectations (EE) have a significant effect on the behavioural intention (BI) of generation Z using QRIS.

3. Social Influence (SI)

Understanding technology adoption entails understanding both the Diffusion of Innovation Theory (IDT) and the Model of PC Utilization (MPCU). Social influence, a significant component, refers to the extent to which an individual perceives that influential others agree on the adoption of a particular technology. Research by L. Yu et al. (2021), which explored factors influencing users' online knowledge payment behavior by incorporating peer influence variables into social influence, indicates that social influence strongly impacts users' payment intentions. Several studies (Abu et al., 2015; Khan et al., 2022; Lonardi & Legowo, 2021; Puriwat & Tripopsakul, 2021; Shehata et al., 2023; Yu, 2012) support this conclusion. Based on these research findings, the following theories are proposed in this study:

H3 : social influence (SI) has a significant effect on the behavioural intention (BI) of generation Z using QRIS.

4. Facilitating Conditions

Venkatesh et al. (2003) define facilitating conditions as the belief in the availability of organizational and technical infrastructure to support technology use. This definition integrates concepts such as perceived behavioral control (from the Theory of Planned Behaviour or TPB/DTPB, C-TAM-TPB), facilitating conditions (from the Model of PC Utilization or MPCU), and compatibility, including work style (from the Diffusion of Innovations Theory or IDT). They amalgamated 32 elements from eight competing models into five constructs within the framework of the Unified Theory of Adoption of Technology Use (UTAUT) and empirically demonstrated that two direct components of adoption behavior are facilitating conditions and behavioral intention. Nuriska et al. (2018) conducted another empirical study focusing on trading intentions using Go-Pay, emphasizing the variable of conducive situations. The study's findings indicate that facilitating conditions significantly influence people's decisions to use Go-Pay (usage behavior). These findings align with other studies that have also found facilitating conditions to significantly impact people's usage behaviors (Abbad, 2021; Dwivedi et al., 2019; Rafferty & Fajar, 2022). However, a study by Khan et al. (2022) examining Middle Eastern clients' behavioral intentions regarding the adoption of Islamic financial technology emphasized the importance of facilitating conditions as a determinant factor. The study's conclusions, supported by previous research, suggest that facilitating conditions have a significant impact on behavioral intentions for Islamic financial technology (Dai et al., 2019; Mensah et al., 2020; Persada et al., 2019). Given this overview, the following theories are proposed in this study:

H4 : facilitating conditions (FC) have a significant effect on the behavioural intention (BI) of generation Z using QRIS. H5 : facilitating conditions (FC) have a significant effect on the usage behaviour (UB) of QRIS by generation Z.

5. Behavioural Intention

UTAUT affirms and demonstrates that behavioral intentions have a major influence on technology use, which is consistent with the method used in psychological theory, which holds that individual behavior can be predicted and influenced by individual intentions (Venkatesh et al., 2003; Venkatesh & Zhang, 2010). In this regard, behavioral intention is a crucial variable in the model developed by Lonardi & Legowo's research from 2021, which examines the elements that encourage public interest in utilizing the Quick Response Code for Indonesian Standard (QRIS). The findings demonstrated that use behavior is significantly influenced by behavioral intention. Thus, in light of these discoveries, the research puts up the following hypothesis:

H6 : behavioural intention (BI) has a significant effect on the usage behaviour (UB) of QRIS by generation Z.

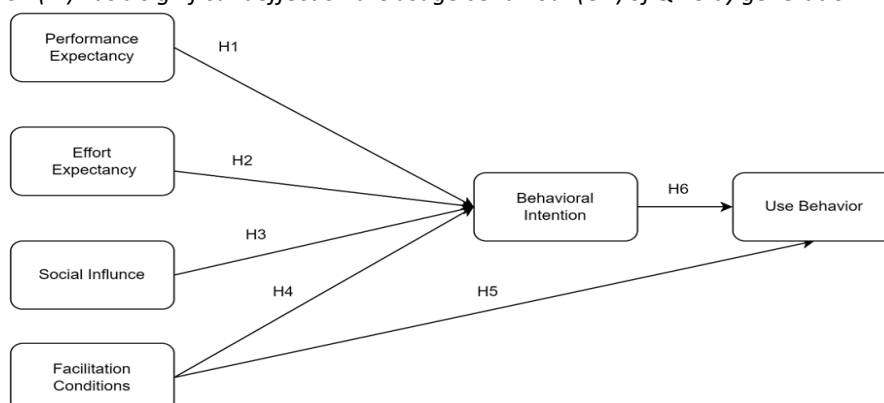


Figure 1. Conceptual model

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III. RESEARCH METHODS

This study is to investigate the link between two or more variables using associative quantitative research methods. With a total population of 70,141 according to data from the Mataram City Statistics Agency, the research population is centered on the members of Generation Z who reside in Mataram City. The Partial Least Squares Structural Equation Modeling (PLS-SEM) research framework sets the minimum sample size at five times the number of indicators for each variable. *Simple random sampling* is the sampling technique utilized (Solimun, 2002). Thus, 110 data are the very minimum that should be gathered for this investigation. Measurement Model Evaluation (Outer Model) and Structural Model Evaluation (Inner Model) are the two testing phases. Respondents who complete a survey distributed as a Google Form serve as the primary source of data. Behavioural intention (BI) and usage behavior (UB) in QRIS adoption are the dependent variables, whereas performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC) are the independent variables under investigation. The study tool is made up of several questions that have been modified for the QRIS technology environment and taken from earlier studies by Venkatesh et al. There are four indications for the PE, EE, and FC variables and three indicators for the UB, BI, and SI variables in these questions. The Likert Scale was used to measure the indicators. The PLS-SEM method was used to analyze the data, and *SmartPLS version 4* was used to process the findings.

IV. RESULTS

A. Respondent Profile

Table 1. Demographics of Respondents (n=128)

Demographics		frequency	percentage
Gender	Male	29	22,66
	Women	99	77,34
Age	17 - 22	120	93,75
	23 - 28	8	6,25
Domicile	Kec. Selaparang	22	17,19
	Kec. Sekarbela	36	28,13
	Kec. Ampenan	18	14,06
	Kec. Mataram	47	36,72
	Kec. Sandubaya	4	3,13
	Kec. Cakranegara	1	0,78
Education	SMA/SMK/MA	93	72,66
	S1	32	25,00
	Diploma	3	2,34
Jobs	Student	123	96,09
	Employees	3	2,34
	Self-employed	1	0,78
	Jobseeker	1	0,78

The respondent profile shows diversity in various demographics. 77.34% of respondents were female, while 22.66% were male. The majority of respondents were in the age range of 17-22 years (93.75%), with a small proportion aged 23-28 years (6.25%). Geographically, the distribution of respondents covered various sub-districts in Mataram City, with the majority coming from Mataram Sub-district (36.72%). Other sub-districts include Selaparang (17.19%), Sekarbela (28.13%), Ampenan (14.06%), Sandubaya (3.13%), and Cakranegara (0.78%). In terms of education, most respondents have a high school/vocational school education (72.66%), followed by S1 (25%) and Diploma (2.34%) graduates. In terms of occupation, the majority of respondents are students (96.09%), while the rest consist of employees (2.34%), self-employed (0.78%), and jobseekers (0.78%). This demographic profile provides an overall picture of the diversity of respondent characteristics that can be an important basis for analysing and interpreting the results of the survey or research conducted.

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B. Evaluation of the Measurement Model (Outer Model)

1. Convergent Validity

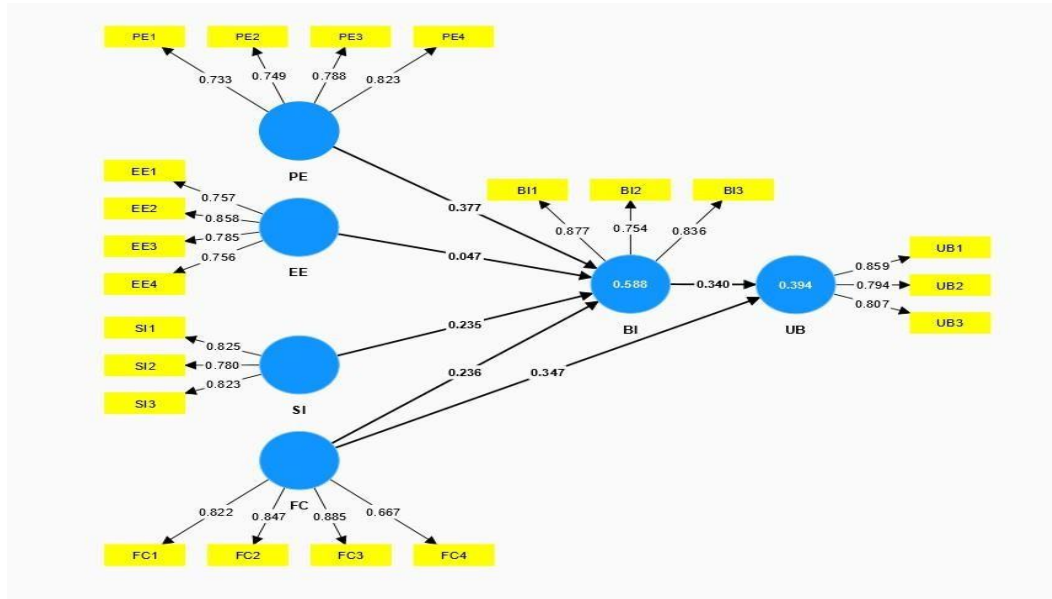


Figure 2. Convergent Validity Test

2. Average Variance Extracted (AVE)

Table 2. Construct Reliability and Validity

	Cronbach's alpha	site reliability (rho_a)	site reliability (rho_c)	Average variance extracted (AVE)
BI	0,764	0,786	0,863	0,679
EE	0,798	0,797	0,869	0,624
FC	0,821	0,837	0,883	0,655
PE	0,776	0,776	0,856	0,599
SI	0,744	0,769	0,850	0,655
UB	0,763	0,779	0,861	0,674

Convergent validity is assessed using the *Average Variance Extracted* (AVE) value. As per the citation provided by Hamid and Anwar (2019), Ghozali and Latan (2015) state that an AVE value is deemed genuine if it exceeds 0.5. The convergent validity of the construct as determined by these indicators is low if the AVE value is less than 0.5. In order to guarantee that the constructs that these indicators assess have strong convergence, an AVE value that approaches or above the 0.5 threshold is recommended as a sufficient measure.

Table 2's output shows that all variables can be deemed valid if the *Average Variance Extracted* (AVE) value is greater than 0.5. The Performance Expectancy (PE) construct has the lowest AVE value, 0.599, while the Behavioural Intention (BI) construct has the highest AVE value, 0.679. These results indicate that the constructs measured by the indicators in the analysis have an adequate level of convergence, where the high AVE value reflects that most of the variance of the indicators can be explained by the measured constructs. Thus, this finding provides confidence that the measurement of these variables is convergently valid.

3. Reliability Test (Cronbach's Alpha)

Reliability testing can be assessed using the *Cronbach's Alpha* value, according to Haryono (2016), with a value of 0.7 or higher deemed acceptable and 0.8 or above deemed extremely satisfactory. As can be seen from Table 1's output, all of the variables have Cronbach's Alpha values ≥ 0.7 , suggesting that these latent variables have sufficient reliability. Furthermore, with extremely high reliability, the Facilitating Conditions (FC) latent variable shines out. Further confidence in the validity and reliability of the instruments used in this study is given by these findings, which show that the measurement tools employed are consistent and dependable in measuring the relevant constructs.

C. Structural Model Evaluation (Inner Model)

1. Testing the Path coefficient (R^2)

The degree to which the value of the independent variable influences the dependent variable is shown by the *R-Square*

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value. Ghozali and Latan (2015), referenced by Hamid & Anwar (2019), state that *R-Square* models fall into three categories: 0.75 (strong), 0.5 (moderate), and 0.25 (weak). An overview of the model's ability to explain fluctuations in the dependent variable is given by these categories.

According to the R-Square results produced in Figure 2, the independent variable's value influences the dependent value by 0.588, or 58.8%, while other elements outside the model, accounting for 0.412, or 41.2%, are explained by the "Moderate" model category.

2. Hypothesis Testing

Table 3. Hypothesis Test

Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	
PE -> BI	0,377	0,379	0,111	3,408	0,001
EE -> BI	0,047	0,045	0,113	0,416	0,678
SI -> BI	0,235	0,247	0,083	2,833	0,005
FC -> BI	0,236	0,232	0,103	2,296	0,022
FC -> UB	0,347	0,344	0,101	3,450	0,001
BI -> UB	0,340	0,349	0,116	2,923	0,003

The purpose of hypothesis testing is to evaluate the importance of the relationship between exogenous and endogenous variables. The rules based on the t-table value of 1.96 with a significance level (alpha) of 5% are followed in this hypothesis test. In this case, the threshold of 1.96 on the t-table is utilized to assess if there is a significant difference between zero and the effect of exogenous variables on endogenous variables. H₀ can be rejected and H₁ accepted if the t-count number in this analysis is higher than the t-table, suggesting that there is a substantial effect. On the other hand, H₀ is accepted and H₁ is rejected if the t-count value is less than the t-table limit, suggesting that there is no meaningful relationship between the exogenous and endogenous variables.

a) performance expectancy (PE) hypothesis testing on behavioral intention (BI)

Table 2 shows that the T statistics value for the behavioral intention variable (BI)'s performance expectancy variable (PE) is 3.408. This indicates that the value has a t-count larger than the t-table value, allowing H₀ to be rejected and H₁ to be approved. These findings suggest that behavioral intention (BI) is significantly impacted by the performance expectancy variable (PE) and its indicators.

b) effort expectancy (EE) hypothesis testing on behavioral intention (BI)

Table 2 shows that the perceived usefulness (BI) variable's T statistics value for the personal efficacy (EE) variable is 0.416. H₀ cannot be rejected because this value is less than the t-table value. Thus, it can be said that the variables of effort expectation (EE) and behavioral intention (BI) do not significantly affect one another.

c) social influence (SI) hypothesis testing on behavioral intention (BI)

The analysis results showed that the behavioural intention variable (BI) had a T statistics value of 2.833 for the social influence variable (SI). H₀ can be rejected and H₁ accepted because this value is greater than the t-table value. Behavioural intention (BI) is significantly influenced by the social influence variable (SI) and its indicators.

d) facilitating conditions (FC) hypothesis testing on behavioural intention (BI)

The analysis's findings indicate that the behavioral intention variable's (BI) facilitating conditions variable's (FC) T statistics value is 2.296. H₀ can be rejected and H₁ accepted because this value is greater than the t-table value. Thus, behavioral intention (BI) is significantly impacted by the enabling conditions variable (FC) and its indications.

e) facilitating conditions (FC) hypothesis testing on usage behaviour (UB)

Table 2 indicates that the facilitating conditions variable (FC) on the usage behavior variable (UB) has a T statistics value of 3.450. This value allows for the rejection of H₀ and the acceptance of H₁, since it exceeds the t-table value. This indicates that there is a substantial relationship between usage behavior (UB) and the enabling conditions variable (FC) and its indicators.

f) behavioural intention (BI) hypothesis testing on usage behaviour (UB)

The T statistics value on the behavioral intention variable (UB)'s perceived usefulness variable (BI) is 2.923, based on the data in Table 2. Given that this value shows that the t-count exceeds the t-table value, H₀ can be disregarded and H₁ can be accepted. These findings suggest that usage behavior (UB) is significantly influenced by the behavioral intention variable (BI) and its indications.

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V. DISCUSSION

The purpose of this study is to demonstrate that *the Unified Theory of Acceptance and Use of Technology* (UTAUT) model factors, which were developed by Vankatesh, have a positive link and a substantial impact on generation Z's decision to use QRIS in Mataram City. The impact of these variables on behavioral intents will be assessed by testing performance expectations, effort expectations, social influence, and enabling environments. Next, demonstrate how behavioral intentions and supportive circumstances affect QRIS users' actions.

The results of testing using *the structural equation model with partial least squares* (SEM-PLS) indicate that although effort expectations do not have a positive and significant effect on behavioural intention, performance expectations, social influence, and facilitating conditions do. Furthermore, the findings demonstrate that behavioral intention and supportive circumstances have a favorable and noteworthy impact on QRIS users' behavior.

Previous studies (Abu et al., 2015; Puriwat & Tripopsakul, 2021) have indicated that performance expectations significantly influence behavioral intentions regarding the adoption of new technologies. This correlation between performance expectations and behavioral intentions aligns with the findings of this study. Risma & Sri (2021) observed that student groups' interest in using QRIS is affected by performance expectations, as they believe that QRIS's fast payment process can enhance productivity. Additionally, Lonardi & Legowo's (2021) study found that while performance expectations do not directly influence the decision to use QRIS in DKI Jakarta, they do significantly impact interest in utilizing the system, albeit with an inverse relationship. Conversely, according to Kadim & Sunardi's (2021), performance expectations do not positively and significantly affect behavioral intentions to use QRIS.

There is a good correlation but no discernible impact between behavioral intentions and business expectations when utilizing QRIS. This is consistent with research by Risma & Sri (2021) on 1,216 students from IAIN Tulungagung's Sharia Banking Department, which found that business expectations have no appreciable impact on the intention to utilize QRIS. This is because users feel that QRIS payment tools are not yet popular so that respondents feel hesitant in using QRIS as well as in this study. Khan et al., (2022), in their findings that effort expectations have no significant effect on behavioural intentions in the use of Islamic financial technology for customers in the Middle East. In addition, research conducted by Abu et al. (2015) on Malaysian Small and Medium Enterprises (SMEs) that the effort expectation construct variable was omitted because SMEs in Malaysia were reluctant to increase the productivity and skills of their employees because they were less able to adapt to the pressures of globalisation. The study's findings, however, contradict those of L. Yu et al. (2021), who found that willingness to pay is positively correlated with performance expectations.

Additionally, the connection between behavioral intention to use QRIS and social influence elements. According to Lonardi & Legowo (2021), a person's behavioral intention to use QRIS payment instruments in DKI Jakarta may be increased by the effect of their closest social circle. In line with this research, that social influence can influence a person's intention to use QRIS. Someone will recommend QRIS payment tools to others by using promotional strategies such as using influencers and social media. However, in the findings of Wiryawan et al., (2023) that promotion does not have a significant effect on interest in using QRIS. Similarly, previous findings (Abbad, 2021; Kadim & Sunardi, 2021; Khan et al., 2022; Nuriska et al., 2018; Rafferty & Fajar, 2022; Risma & Sri, 2021; Shehata et al., 2023) that social influence has no significant effect on behavioural intention.

Earlier research (Dai et al., 2019; Mensah et al., 2020; Rafferty & Fajar, 2022; Risma & Sri, 2021) has established a positive and significant correlation between the facilitating conditions construct variable and the behavioral intention to use QRIS in this study. Similar results were observed in Nuriska et al.'s (2018) investigation on the adoption of the Go-Pay payment system: conducive circumstances significantly influence users' behavioral intentions to adopt the system. In this study, Generation Z refers to individuals aged 17 to 22 residing in urban areas. At this age, Generation Z commonly utilizes smartphones and is motivated to adopt QRIS payment methods due to the conveniences available in urban settings.

Furthermore, in accordance with Kadim & Sunardi (2021), facilitating conditions have a good link and a considerable impact on QRIS usage behavior. It also aligns with research by Puriwat & Tripopsakul (2021), which found that adoption of social media for commercial purposes is influenced by enabling environments. It does, however, bear inverse proportion to the conclusions of Lonardi & Legowo (2021), who found that the use of QRIS payment mechanisms in DKI Jakarta is not significantly impacted by facilitating conditions.

Finally, these results suggest that a person is more likely to actually adopt a behavior if they have a higher intention to utilize a QRIS. The findings of earlier research (Dai et al., 2019; Kadim & Sunardi, 2021; Lonardi & Legowo, 2021; Yu, 2012) support this, demonstrating the significance of purpose as a major predictor of QRIS usage behavior.

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VI. CONCLUSIONS AND SUGGESTIONS

A. Conclusion

The present study has demonstrated that the variables encompassed in Venkatesh's Unified Theory of Acceptance and Use of Technology (UTAUT) model, namely performance expectancy, social influence, and facilitating conditions, exhibit a noteworthy and affirmative correlation with the intention of Gen Z individuals to utilize QRIS in Mataram City. It hasn't been demonstrated that effort expectancy significantly affects behavioral intention, nevertheless. Furthermore, there is a noteworthy and favorable correlation between QRIS usage behavior and facilitating conditions and behavioral intention.

B. Suggestions

For future researchers, there are several research directions that can be further explored. First, investigating other factors that might influence QRIS usage intention and behaviour in different environments, including diverse social, cultural and economic contexts. Secondly, expanding the scope of research to understand the differences in factors influencing QRIS adoption between generation Z and other age groups, so that it can be tailored to the needs and preferences of each group. Third, examine the impact of different promotion and social influence strategies on QRIS usage intentions and behaviours, to improve the effectiveness of promotional campaigns and the implementation of more efficient strategies.

Improving understanding of the advantages and benefits of QRIS among customers in Mataram City is crucial to increase their willingness to adopt this technology. Furthermore, users can actively utilize the available facilities to facilitate QRIS usage, such as establishments supporting QRIS transactions, to optimize non-cash transactions and enhance efficiency in their daily routines.

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