

The Influence of Perceived Ease of Use and Perceived Usefulness on the Intention to Use QRIS as a Digital Payment Solution among Generation Z in Ternate City

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Abstract

The urgency of this research lies in understanding the factors that influence Generation Z's intention to adopt QRIS as a digital payment solution, thereby supporting the acceleration of financial digitalization and the development of a cashless society in Ternate City. This study examines the influence of perceived ease of use and perceived usefulness on the intention to use QRIS (Quick Response Code Indonesian Standard) among Generation Z in Ternate City. The study employs a quantitative approach with an associative research design based on the Technology Acceptance Model (TAM). The research was conducted in Ternate City, Indonesia, involving Generation Z users as the research subjects. A purposive sampling technique was applied to select 50 respondents who were familiar with digital payment systems and QRIS services. Data were collected through structured questionnaires distributed directly to respondents. The collected data were analyzed using multiple linear regression analysis to determine the relationship between perceived ease of use, perceived usefulness, and behavioral intention. To ensure data quality, validity and reliability tests were conducted before hypothesis testing. The findings reveal that perceived ease of use and perceived usefulness simultaneously have a significant effect on behavioral intention to use QRIS, with a coefficient of determination (R^2) of 50.4%. Partially, perceived usefulness has a statistically significant effect on behavioral intention, while perceived ease of use is not significant at the 5% significance level but becomes marginally significant at the 10% level. These results indicate that perceived usefulness plays a more dominant role in encouraging Generation Z to adopt QRIS as a digital payment method. The study suggests that stakeholders should strengthen educational and promotional strategies emphasizing the practical benefits and efficiency of QRIS to increase user adoption among young consumers.

Keywords: *QRIS, Generation Z, Technology Acceptance Model, Perceived Ease of Use, Perceived Usefulness, Behavioral Intention*

Introduction

Technological advancement has become one of the most widely discussed issues in recent years, particularly in the financial sector. One manifestation of this development is the emergence of digital payment systems and digital wallets. Although digital wallets have existed since the early 2000s, their widespread adoption only accelerated during the COVID-19 pandemic due to increasing public awareness of contactless transactions (Candra & Zulkarnain, 2024). The transformation of information and communication technology has significantly contributed to the expansion of the digital economy and financial inclusion. Digital payment systems are increasingly preferred because they provide efficiency, convenience, speed, and reduced physical interaction in transaction activities.

An effective and secure payment system is essential to support smooth financial transactions (Amri et al., 2023). Furthermore, non-cash transaction services represent an important innovation in the economic and financial sectors, accelerating the integration of Indonesia's financial system (Zainuddin et al., 2023). Various digital payment instruments, such as *mobile banking*, *electronic payment*, and *web banking*, have experienced rapid growth and become increasingly popular among consumers. The shift toward digital transactions has created a perception that digital payment systems offer practicality, security, and efficiency while minimizing transaction risks (Aman et al., 2023).

According to Law Number 23 concerning Bank Indonesia, Article 1 Paragraph 6, a payment system is defined as a set of rules, institutions, and procedures used to transfer funds in fulfilling obligations arising from economic activities. This system functions as a mechanism for transferring value between parties through various payment instruments ranging from simple to highly complex systems. In Indonesia, Bank Indonesia plays a strategic role in regulating, supervising, and maintaining the efficiency and security of the Payment System and Rupiah Currency Management (*Sistem Pembayaran dan Pengelolaan Uang Rupiah/SPPUR*) (Pangestika et al., 2025; Yusuf et al., 2022).

One of the most widely used non-cash payment instruments in Indonesia today is QRIS (*Quick Response Code Indonesian Standard*). QRIS is a national QR code standard developed to integrate various digital payment platforms, including *e-wallets* and *mobile banking*, into a unified payment system (Rahimi et al., 2024). The implementation of QRIS in Indonesia has shown remarkable growth throughout 2025. Data released by Bank Indonesia indicate that QRIS transaction volume increased by 154.86% year-on-year, supported by a growing number of users and merchants. During the first quarter of 2025, QRIS transaction volume reached 2.6 billion transactions compared to 374 million transactions during the same period in the previous year. The transaction value also increased substantially from IDR 105 trillion to IDR 262.1 trillion. Additionally, the number of QRIS users rose from 48 million to 56.3 million, while merchants increased from 32 million to 38.1 million, most of whom were MSMEs.

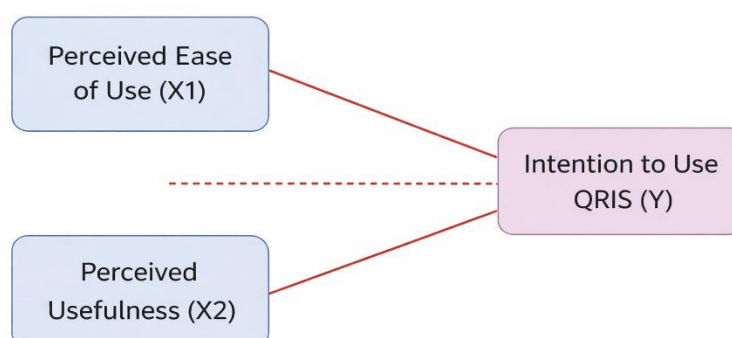
Generation Z, defined as individuals born between 1997 and 2012, is widely recognized as a generation highly familiar with digital technology. As *digital natives*, they have grown up alongside the internet, smartphones, and digital applications. This generation generally demonstrates characteristics that support the use of digital financial services such as QRIS, particularly due to their preference for speed, flexibility, and efficiency in conducting transactions. However, despite the availability of digital infrastructure, the level of QRIS usage among Generation Z in Ternate remains relatively low. Preliminary observations indicate that many students and young consumers still prefer cash transactions or conventional bank transfers rather than QRIS payments (Filiya et al., 2025). This condition reflects a discrepancy between the availability of digital payment technology and users' intention to adopt it actively (Fadilah & Andriani, 2025; Bombongan et al., 2026).

Several previous studies have confirmed the validity of TAM in explaining QRIS adoption behavior. Research conducted that perceived ease of use and perceived usefulness significantly influence user satisfaction with QRIS among university students in Jambi (Lubis et al., 2024). Similarly, revealed that perceived usefulness significantly affects user interest in QRIS *e-payment*, while perceived ease of use does not significantly influence user interest individually (Laloan et al., 2023). Nevertheless, all variables simultaneously influence QRIS adoption among students of the Faculty of Economics and Business at Sam Ratulangi

University. Furthermore, demonstrated that perceived usefulness and perceived ease of use significantly affect MSMEs' intention to use QRIS, supported by digital literacy factors (Nur et al., 2024). that perceived usefulness and perceived ease of use positively influence QRIS adoption among culinary MSMEs in Surabaya (Firdausi & Antonio, 2025; Azzahroo & Estiningrum, 2021).

Despite the growing body of literature regarding QRIS adoption, most previous studies have primarily focused on large cities and regions in western Indonesia. Studies examining QRIS adoption behavior in eastern Indonesia, particularly in Ternate, remain very limited. This condition represents a significant research gap because eastern Indonesia possesses distinct socio-cultural characteristics, geographical conditions, and levels of digital literacy that may influence technology adoption differently. Therefore, the novelty of this research lies in its focus on Generation Z in Ternate City as a representative of eastern Indonesia, an area that has received limited scholarly attention in studies related to QRIS adoption using the TAM framework. In addition, this study provides contextual empirical evidence regarding the influence of perceived ease of use and perceived usefulness on QRIS usage intention among young digital consumers in peripheral regions of Indonesia.

Based on these gaps, this study aims to analyze the influence of perceived ease of use and perceived usefulness on the intention to use QRIS among Generation Z in Ternate. Specifically, this research seeks to examine both the simultaneous and partial effects of the two TAM variables on behavioral intention toward QRIS adoption. The findings of this study are expected to contribute theoretically by expanding the application of TAM in less explored regional contexts. Practically, the results are expected to provide insights for Bank Indonesia, financial institutions, and digital payment providers in designing educational and promotional programs that are more adaptive to local characteristics and capable of accelerating digital financial inclusion in Indonesia. Based on the theoretical review and previous studies, the conceptual framework of this research can be illustrated as follows:



Explanation:

X_1 (Perceived Ease of Use): The ease perceived by users in accessing and using QRIS.

X_2 (Perceived Usefulness): The user's belief that using QRIS provides benefits in transactions.

Y (Intention to Use QRIS): The intention or tendency of Generation Z to use QRIS in daily payment activities.

Based on the conceptual framework and the Technology Acceptance Model (TAM), this study proposes three main hypotheses consisting of one simultaneous hypothesis and two partial hypotheses. These hypotheses aim to examine the effect of Perceived Ease of Use and

Perceived Usefulness on the Intention to Use QRIS as a digital payment solution among Generation Z in Ternate City.

The null hypothesis (H_{01}) states that Perceived Ease of Use and Perceived Usefulness do not have a significant effect on the Intention to Use QRIS as a digital payment solution among Generation Z in Ternate City. Conversely, the alternative hypothesis (H_{11}) states that both variables simultaneously have a significant effect on this intention. Furthermore, partially, the null hypothesis (H_{02}) states that Perceived Ease of Use (X_1) does not have a significant effect on the Intention to Use QRIS among Generation Z in Ternate City, while the alternative hypothesis (H_{12}) states that Perceived Ease of Use (X_1) has a significant effect on this intention. Similarly, the null hypothesis (H_{03}) states that Perceived Usefulness (X_2) does not have a significant effect on the Intention to Use QRIS, while the alternative hypothesis (H_{13}) states that Perceived Usefulness (X_2) has a significant effect. The testing of these partial hypotheses is conducted using the t-test.

Method

This study employed a quantitative research approach using an associative research design to examine the influence of *Perceived Ease of Use* and *Perceived Usefulness* on the intention to use QRIS as a digital payment solution among Generation Z in Ternate. Quantitative research was selected because this study aims to measure causal relationships among variables through statistical analysis and empirical testing based on numerical data. Quantitative methods are appropriate for studies that seek to test hypotheses and determine relationships among variables objectively. The associative approach was adopted because this research specifically investigates the relationship between independent variables and dependent variables within the framework of the *Technology Acceptance Model* (TAM) developed by Fred D. Davis (Davis, 1989).

The research was conducted in Ternate, which is one of the developing urban areas in eastern Indonesia experiencing rapid digital transformation, particularly in financial technology adoption. Ternate City was selected as the research location because it represents a peripheral region where digital payment adoption patterns may differ from those in major metropolitan areas in western Indonesia. In addition, Generation Z in Ternate City has increasingly interacted with digital payment systems through *e-wallets*, *mobile banking*, and QRIS transactions in cafés, retail stores, online transportation services, and educational environments. However, despite the expansion of digital infrastructure, the level of QRIS adoption among young consumers in the region remains relatively limited. Therefore, this setting provides a relevant context for examining technology acceptance behavior in less explored regions.

The population of this study consisted of Generation Z individuals residing in Ternate City who were familiar with or had previously used QRIS in transaction activities. Generation Z refers to individuals born between 1997 and 2012 who are commonly categorized as *digital natives* because they grew up in an environment dominated by internet-based technology and digital communication platforms (Saputra, 2024). Since the exact number of QRIS users among Generation Z in Ternate City could not be accurately identified, this study used a non-probability sampling method through purposive sampling techniques. Purposive sampling was considered appropriate because respondents were selected based on specific criteria relevant to the objectives of the study. The criteria established in this research included: (1)

respondents were born between 1997 and 2012, (2) respondents resided in Ternate City, and (3) respondents had experience using or accessing QRIS services for digital transactions. Based on these criteria, a total of 50 respondents were selected as research participants. This sample size was considered sufficient for exploratory multiple regression analysis because it met the minimum statistical requirements for social science research involving two independent variables and one dependent variable.

This study utilized both primary and secondary data sources. Primary data were collected directly from respondents through structured questionnaires distributed online using *Google Forms*. Online questionnaires were chosen because they enabled efficient data collection from respondents who actively use digital technology and internet services. The questionnaire items were developed based on indicators derived from previous TAM-related studies concerning digital payment systems and QRIS adoption (Rahimi et al., 2024; Firdausi & Antonio, 2025). Secondary data were obtained from scientific journals, books, government reports, official publications from Bank Indonesia, and previous empirical studies related to QRIS, financial technology adoption, and the Technology Acceptance Model. Secondary data were used to strengthen theoretical arguments, support variable operationalization, and compare the findings of this study with prior research results.

The research instrument employed in this study was a structured questionnaire using a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The questionnaire consisted of statements representing three major variables, namely *Perceived Ease of Use* (X_1), *Perceived Usefulness* (X_2), and *Behavioral Intention to Use QRIS* (Y). The *Perceived Ease of Use* variable was measured using indicators such as ease of learning, clarity of the QRIS system, flexibility in usage, and ease of transaction processes. These indicators reflect the extent to which users believe that QRIS can be used without significant effort (Davis, 1989). The *Perceived Usefulness* variable was measured through indicators related to transaction efficiency, productivity enhancement, speed of payment processes, effectiveness, and convenience in conducting financial transactions. Meanwhile, the *Behavioral Intention* variable was measured through indicators including the intention to continue using QRIS, willingness to recommend QRIS to others, and commitment to future usage.

To ensure the quality of the research instrument, validity and reliability tests were conducted before hypothesis testing. Instrument validity was examined using Pearson Product-Moment correlation analysis by comparing the correlation coefficient of each item with the critical value at the 5% significance level. Questionnaire items were considered valid if the calculated correlation value exceeded the critical *r-table* value and demonstrated a significance level below 0.05. Reliability testing was performed using Cronbach's Alpha coefficients to determine the consistency and stability of the measurement instrument. According to Hair et al. (2019), a Cronbach's Alpha value above 0.70 indicates acceptable reliability for social science research instruments. The results of these tests confirmed that all questionnaire items were valid and reliable for further statistical analysis.

Data analysis in this study was conducted using IBM SPSS Statistics version 29. The analysis process began with descriptive statistical analysis to identify respondent characteristics and describe the distribution of responses for each variable. Subsequently, classical assumption tests were conducted to ensure that the regression model fulfilled the requirements for multiple linear regression analysis. The normality test was performed using the Kolmogorov-Smirnov test to determine whether the residual values were normally

distributed. A significance value greater than 0.05 indicated normal data distribution. Multicollinearity testing was conducted using *Variance Inflation Factor* (VIF) and tolerance values. Multicollinearity does not occur when VIF values are below 10 and tolerance values exceed 0.10. In addition, heteroscedasticity testing was carried out using scatterplot analysis and significance testing to examine whether residual variances were distributed equally across observations.

After the classical assumptions were fulfilled, multiple linear regression analysis was conducted to examine the simultaneous and partial effects of the independent variables on the dependent variable. The regression equation used in this study can be formulated as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + e$$

where Y represents the intention to use QRIS, a denotes the regression constant, b_1 and b_2 indicate regression coefficients, X_1 refers to *Perceived Ease of Use*, X_2 refers to *Perceived Usefulness*, and e represents the error term.

Hypothesis testing was conducted using both simultaneous and partial significance tests. The F-test was used to examine whether *Perceived Ease of Use* and *Perceived Usefulness* simultaneously influenced the intention to use QRIS. A significance value below 0.05 indicated that the independent variables collectively affected the dependent variable. Meanwhile, the t-test was used to examine the individual influence of each independent variable on behavioral intention. Variables with significance values below 0.05 were considered to have significant partial effects on QRIS usage intention. In addition, the coefficient of determination (R^2) was used to measure the proportion of variation in behavioral intention explained by the independent variables included in the model.

The research methodology applied in this study was designed systematically to ensure the validity, reliability, and empirical accuracy of the findings. Through quantitative analysis and the application of the Technology Acceptance Model, this study provides empirical evidence regarding the determinants of QRIS adoption among Generation Z in eastern Indonesia while contributing to the broader literature on digital financial technology acceptance.

Results

This study was conducted in Ternate City, North Maluku Province, focusing on Generation Z aged between 17 and 26 years, as a group that demographically has a high level of interaction with digital technology, including payment systems based on the QRIS. Ternate City is the center of government, trade, and education in the province, and at the same time serves as one of the strategic areas in the development of the digital economy in Eastern Indonesia. Geographically, Ternate is an archipelagic city located on an important shipping route and has rapidly developing technological infrastructure, although it is not yet evenly distributed across all areas. With the presence of educational centers such as universities, vocational high schools, and commercial areas that have begun to adopt non-cash payment systems, Ternate City represents a relevant location for observing the interest and responses of the younger generation toward financial innovations such as QRIS.

Data show that QRIS has been used by the majority of respondents for daily activities, such as transactions in cafés and online motorcycle taxi services. However, the level of QRIS usage still depends on two main factors, namely perceived ease of use and perceived

usefulness. Quantitative data obtained through questionnaire distribution indicate that respondents with a high perception of the ease of use of QRIS are more likely to have a strong intention to continue using QRIS in their transactions. This finding is reinforced by the results of multiple linear regression tests showing a significance value < 0.05 , indicating that perceived ease of use (X_1) has a significant effect on the intention to use QRIS (Y). Furthermore, perceived usefulness (X_2) is also proven to be a factor influencing Generation Z's intention to use QRIS.

Respondents assess that QRIS provides convenience in terms of transaction speed, time efficiency, and comfort as it eliminates the need to carry cash. QRIS is also considered secure because it does not directly store personal data and minimizes the risk of counterfeit money. Regression results show a strong positive coefficient between perceived usefulness and intention to use, confirming that as the perceived benefits increase, the intention to use the system also increases.

There are challenges in the field. Some respondents are not yet willing to use QRIS because they are accustomed to cash transactions. On the other hand, not all MSMEs provide QRIS facilities. In addition, some business actors are still not well informed about the procedures for registering as QRIS merchants and its benefits for their business transactions. Socio-cultural aspects also play an important role in the adoption of this digital financial technology. Direct interaction with sellers and bargaining habits remain characteristic features of the local economic ecosystem. Therefore, although QRIS is considered practical, its use has not fully replaced conventional methods. This phenomenon shows that even though the technology is available, the success of its implementation still largely depends on public understanding, digital infrastructure readiness, and contextual educational approaches.

Results of Multiple Linear Regression Analysis

This study uses multiple linear regression to examine the effect of perceived ease of use (X_1) and perceived usefulness (X_2) on the intention to use QRIS (Y) among Generation Z in Ternate City. Based on the results of data processing using SPSS version 29 with 50 respondents, the regression output is as follows:

Model Summary

Table 1. Regression Model Statistics Table

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.710	0.504	0.483	2.010

From the results above, it is known that the correlation coefficient (R) value of 0.710 indicates a strong relationship between Perceived Ease of Use and Perceived Usefulness simultaneously on the Intention to Use QRIS. This indicates that both independent variables have a strong association with the dependent variable. Furthermore, the coefficient of determination (R Square) value of 0.504 implies that 50.4% of the variation in the Intention to Use QRIS can be explained by the variables Perceived Ease of Use and Perceived Usefulness.

The remaining 49.6% is explained by other factors outside this research model, such as transaction security, usage convenience, as well as promotional and social environmental factors. The Adjusted R Square value of 0.483 indicates that after adjusting for the number of independent variables in the model, 48.3% of the variation in the intention to use QRIS can still be explained by the two independent variables. The Adjusted R Square value, which is not

much different from R Square, shows that the model does not experience overfitting and can still be used as a basis for drawing scientific conclusions. The Standard Error of the Estimate of 2.010 indicates the average deviation between actual values and predicted values generated by the model. This value is still within the tolerance range for models measuring consumer behavior, especially in complex socio-economic contexts such as the use of financial technology.

F-Test (Simultaneous)

ANOVA (Analysis of Variance) analysis is used to determine whether the regression model has a statistically significant effect at the 5% level ($\alpha = 0.05$) simultaneously between the independent variables and the dependent variable. The ANOVA test results in this study are presented as follows.

Table 2. F-Test

Model	Sum of Squares	f	Mean Square	F	Sig.
Regression	192.949		96.475	23.874	< 0.001
Residual	189.931	7	4.041		
Total	382.880	9			

The regression data show an F value of 23.874 with a significance level of p-value < 0.001. Since the significance value is smaller than 0.05, it can be concluded that the regression model is simultaneously significant. This means that the variables Perceived Ease of Use (X_1) and Perceived Usefulness (X_2) together have a significant effect on the Intention to Use QRIS (Y). Thus, the research hypothesis stating that there is a simultaneous effect of perceived ease of use and perceived usefulness on the intention to use QRIS among Generation Z in Ternate City is accepted.

T-Test (Partial)

The t-test is used to examine the effect of each independent variable partially on the dependent variable. In this study, the independent variables are Perceived Ease of Use (X_1) and Perceived Usefulness (X_2), while the dependent variable is the Intention to Use QRIS (Y).

Table 3. T-Test

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.	Tolerance	VIF
(Constant)	0.721	3.193	–	0.226	0.822	–	–
X1	0.194	0.112	0.195	1.729	0.090	0.829	1.206
X2	0.590	0.110	0.607	5.376	< 0.001	0.829	1.206

Perceived Ease of Use (X_1) has a coefficient value of B = 0.194 with a Sig. value of 0.090, which is greater than 0.05. This indicates that Perceived Ease of Use does not have a statistically significant partial effect on the Intention to Use QRIS at the 5% significance level. However, at the 10% significance level, its effect can still be considered marginally significant. Perceived Usefulness (X_2) has a coefficient value of B = 0.590 and Sig. < 0.001, which means that Perceived Usefulness has a significant effect on the Intention to Use QRIS. The Beta coefficient value of 0.607 indicates that this variable is the most dominant contributor in the regression model compared to X_1 . The VIF (Variance Inflation Factor) values for X_1 and X_2 are both 1.206, which are below the threshold of 10, indicating that there is no multicollinearity issue between the two independent variables.

Based on the results of multiple linear regression analysis using SPSS, the regression equation based on the unstandardized coefficients (B) is as follows:

$$Y = 0.721 + 0.194 X_1 + 0.590 X_2$$

Where Y is the Intention to Use QRIS, X_1 is Perceived Ease of Use, and X_2 is Perceived Usefulness. The intercept (constant) value of 0.721 indicates that when Perceived Ease of Use (X_1) and Perceived Usefulness (X_2) are at zero, the predicted value of the Intention to Use QRIS is 0.721 units. Theoretically, this value represents the baseline of the predictive model when both independent variables do not exert influence. The regression coefficient for Perceived Ease of Use (X_1) of 0.194 indicates that every one-unit increase in perceived ease of use will increase the intention to use QRIS by 0.194 units, assuming that Perceived Usefulness remains constant. Meanwhile, the regression coefficient for Perceived Usefulness (X_2) of 0.590 indicates that every one-unit increase in perceived usefulness will increase the intention to use QRIS by 0.590 units, assuming other variables remain constant.

These results show that Perceived Usefulness has a more dominant contribution in influencing Generation Z's intention to use QRIS compared to Perceived Ease of Use. This is also supported by the t-test results, which show that Perceived Usefulness has a positive and significant effect on the intention to use QRIS, with a significance value < 0.001 . In contrast, Perceived Ease of Use does not have a significant partial effect at the 5% level due to its significance value of 0.090, but it can be categorized as marginally significant at the 10% level.

The VIF value of 1.206 and tolerance value of 0.829 indicate that there is no multicollinearity among variables in the model, thus the regression model can be considered valid for interpretation. Overall, it can be concluded that the perceived benefits of using QRIS are the main factor driving Generation Z's intention in Ternate City to use this digital payment system. Meanwhile, although perceived ease of use does not have a significant partial effect, it still plays an important role in the model simultaneously, as evidenced by the significant F-test results.

The findings of this study are consistent with the Technology Acceptance Model (TAM) proposed by Fred D. Davis, which explains that an individual's intention to adopt technology is strongly influenced by perceived usefulness and perceived ease of use (Davis, 1989). In the context of QRIS adoption among Generation Z in Ternate, perceived usefulness emerged as the most dominant factor influencing behavioral intention, indicating that users are more motivated to utilize QRIS when they perceive clear benefits such as transaction efficiency, speed, convenience, and security. This finding supports previous studies stating that perceived usefulness significantly influences digital payment adoption behavior among young consumers (Firdausi & Antonio, 2025; Nur et al., 2024).

Perceived ease of use was found to have a marginally significant effect, suggesting that although ease of operation contributes to users' acceptance of QRIS, it is not the primary determinant of behavioral intention in this study. This condition indicates that Generation Z respondents, as digital natives, are already familiar with technology, making perceived usefulness more influential than operational simplicity. Therefore, the results reinforce TAM theory by confirming that users tend to adopt digital payment technologies when they believe the technology can improve the effectiveness and efficiency of their daily activities (Puspitasari et al., 2023).

Discussion

The Effect of Perceived Ease of Use on the Intention to Use QRIS

The results of the t-test demonstrate that Perceived Ease of Use (X_1) has a regression coefficient value of 0.194 with a significance value of 0.090. Statistically, this value is higher than the standard significance threshold of 0.05, indicating that Perceived Ease of Use does not have a significant partial effect on the intention to use QRIS among Generation Z in Ternate. Nevertheless, because the significance value approaches the 10% threshold, the variable can still be categorized as marginally significant. This finding suggests that the ease associated with operating QRIS is not yet sufficiently strong to independently encourage Generation Z users in Ternate City to adopt QRIS consistently in their daily transactions. In other words, although respondents generally perceive QRIS as relatively easy to use, this perception alone is insufficient to become the primary determinant of their behavioral intention.

The findings can be interpreted through the perspective of the Technology Acceptance Model (TAM), which explains that perceived ease of use reflects the degree to which individuals believe that using a particular technology will be free of effort (Davis, 1989). TAM further explains that when users perceive a technology as easy to operate, they tend to develop a positive attitude toward its adoption. However, in this study, the relatively weak influence of Perceived Ease of Use indicates that Generation Z respondents may already possess sufficient digital literacy and technological familiarity, making ease of use no longer a critical issue in determining technology adoption decisions.

Since Generation Z grew up in a highly digital environment characterized by smartphones, social media, and online platforms, they generally perceive digital systems as naturally accessible and uncomplicated. Consequently, operational simplicity becomes a standard expectation rather than a unique motivating factor influencing usage intention. This finding is relevant to the socio-demographic characteristics of Generation Z in Ternate, who have frequent exposure to digital payment applications such as mobile banking, e-wallets, and online transaction platforms.

Respondents in this study generally considered QRIS to be practical because transactions can be completed simply by scanning QR codes through smartphone applications. However, this practicality is no longer viewed as a distinctive advantage because users already interact daily with various digital technologies offering similar convenience. Therefore, although respondents acknowledge that QRIS is easy to learn and operate, their intention to use the system is more strongly influenced by other factors, particularly the practical benefits obtained from the technology. The results of this study are consistent with previous findings reported by (Firdausi & Antonio, 2025). Who found that Perceived Ease of Use does not always exert a strong direct influence on the intention to use QRIS among MSME actors in Surabaya.

Revealed that ease of use may influence technology acceptance indirectly through perceptions of usefulness rather than directly affecting behavioral intention (Sri et al., 2024). These findings imply that users tend to prioritize whether the technology provides meaningful benefits rather than merely focusing on whether it is easy to use. In the context of digital financial technology, convenience has become an expected feature, while perceived value and efficiency become more influential determinants of adoption behavior.

Another possible explanation for the insignificant effect of Perceived Ease of Use relates to infrastructural and contextual conditions in eastern Indonesia. Although digital infrastructure in Ternate City has developed significantly, internet access quality and merchant readiness remain uneven across several areas. Some respondents indicated that technical barriers such as unstable internet connections, limited merchant QRIS availability, and inconsistent transaction experiences reduce the importance of ease of use in shaping behavioral intention. This means that even though the application interface is perceived as user-friendly, external conditions still affect the actual adoption process.

The success of QRIS implementation depends not only on the technological design itself but also on supporting ecosystem readiness, including infrastructure, merchant participation, and public education regarding digital payments. Furthermore, cultural and behavioral factors also contribute to the relatively weak influence of Perceived Ease of Use. Many respondents stated that they still frequently use cash transactions due to long-established habits and direct interaction patterns within traditional marketplaces and small businesses. In local socio-economic contexts, face-to-face transactions and bargaining activities remain common practices. As a result, technological convenience alone cannot immediately replace conventional transaction habits that are deeply embedded in society. This finding highlights that technology adoption is not solely determined by system characteristics but is also shaped by social and cultural contexts influencing user behavior.

Despite the insignificant partial effect, the simultaneous test results indicate that Perceived Ease of Use together with Perceived Usefulness significantly influence behavioral intention. This suggests that ease of use still contributes to the overall predictive model of QRIS adoption. TAM theory explains that Perceived Ease of Use can indirectly influence behavioral intention through Perceived Usefulness, meaning that users who perceive QRIS as easy to use are more likely to recognize its practical benefits (Davis, 1989). Therefore, although ease of use does not emerge as the strongest independent predictor in this study, it remains an important foundational factor supporting users' perceptions regarding the usefulness of QRIS technology.

The Effect of Perceived Usefulness on the Intention to Use QRIS

The results of the regression analysis indicate that Perceived Usefulness (X_2) has a positive and statistically significant effect on the intention to use QRIS among Generation Z in Ternate. The variable obtained a regression coefficient value of 0.590 with a significance value below 0.001, indicating a strong positive relationship between perceived usefulness and behavioral intention. In addition, the standardized Beta coefficient value of 0.607 demonstrates that Perceived Usefulness is the most dominant variable influencing the intention to use QRIS within the regression model.

This finding confirms that Generation Z users are more likely to adopt QRIS when they perceive substantial practical benefits from the technology. These findings strongly support the Technology Acceptance Model proposed by Fred D. Davis, which identifies perceived usefulness as the primary determinant influencing technology adoption behavior (Davis, 1989). According to TAM theory, individuals tend to accept and utilize technology when they believe that the technology will improve their performance, efficiency, or productivity.

In the context of QRIS usage, respondents perceived the system as beneficial because it simplifies transactions, accelerates payment processes, reduces dependency on cash, and

increases transaction efficiency. Users also perceive QRIS as practical because it enables payments through a single integrated system compatible with multiple digital payment applications. From a practical perspective, the findings indicate that Generation Z consumers prioritize functional benefits over operational simplicity. Respondents considered QRIS particularly useful in supporting fast-paced lifestyles characterized by mobility, convenience, and efficiency.

QRIS enables users to conduct transactions quickly without carrying physical cash, thereby reducing transaction time and increasing flexibility in everyday activities. This is particularly relevant for Generation Z consumers who frequently engage in digital commerce activities, online transportation services, café transactions, and modern retail purchases. The ability to complete payments through smartphones aligns closely with their digital-oriented lifestyle and preference for instant services. In addition, respondents perceived QRIS as offering financial security and transaction reliability. Many participants stated that QRIS minimizes the risks associated with carrying cash, such as loss, theft, or counterfeit money circulation.

The system also provides transaction records automatically through digital applications, enabling users to monitor spending activities more effectively. These practical and security-related advantages contribute significantly to users' perceptions regarding the usefulness of QRIS technology. The results of this study are consistent with previous empirical findings. The Perceived Usefulness significantly influences users' intention to adopt QRIS-based digital payment systems (Hutahayan et al., 2024). Similarly, demonstrated that perceived usefulness is one of the strongest predictors of QRIS adoption among MSMEs and younger consumers (Nur et al., 2024).

Research conducted, also confirmed that users are more likely to adopt digital systems when they perceive clear functional advantages and efficiency improvements (Puspitasari et al., 2023). Collectively, these findings reinforce the argument that users' perceptions regarding the practical value of technology are central determinants of behavioral intention. The strong influence of Perceived Usefulness in this study can also be linked to the evolving digital economy ecosystem in eastern Indonesia. As digital commerce and financial technology services expand, consumers increasingly require payment systems that support speed, convenience, and flexibility.

QRIS fulfills these expectations by integrating multiple payment platforms into a unified transaction mechanism. Therefore, users perceive QRIS not merely as a technological innovation but as a practical solution that improves daily transaction experiences. However, despite the strong positive influence of Perceived Usefulness, challenges remain regarding the broader implementation of QRIS. Some respondents indicated that limited merchant participation and insufficient public education still hinder wider adoption.

Several small business owners in Ternate City have not fully implemented QRIS because of limited understanding regarding merchant registration procedures and digital transaction systems. This condition demonstrates that the perceived usefulness of technology must be supported by adequate infrastructure and educational programs to achieve broader adoption. Consequently, regulators and financial institutions need to strengthen digital literacy programs while expanding QRIS accessibility among MSMEs and local communities.

Simultaneous Effect (F-Test)

The F-test results in the regression model show that Perceived Ease of Use and Perceived Usefulness simultaneously have a significant effect on the Intention to Use QRIS. With an F value of 23.874 and a significance level of < 0.001 , as well as a coefficient of determination (R^2) of 0.504, it can be concluded that 50.4% of the variation in the intention to use QRIS can be explained by these two independent variables. The remaining 49.6% is explained by other factors outside the model, such as perceived risk, trust, or social norms.

These findings confirm that the combination of perceived ease and perceived usefulness of QRIS can significantly shape the intention to use among Generation Z. Therefore, both factors are important considerations for digital financial service providers and regulators such as Bank Indonesia in formulating data-driven promotion and education strategies.

Conclusion

This study aimed to examine the influence of Perceived Ease of Use and Perceived Usefulness on the intention to use QRIS among Generation Z in Ternate City using TAM. The results indicate that both variables simultaneously have a significant effect on behavioral intention to use QRIS, as demonstrated by an F-value of 23.874 ($p < 0.001$). The coefficient of determination ($R^2 = 0.504$) shows that 50.4% of the variation in QRIS adoption intention can be explained by the two variables, while the remaining 49.6% is influenced by other factors outside the model. Perceived Usefulness emerged as the most influential factor, with a regression coefficient of 0.590 ($p < 0.001$), indicating that Generation Z users are more likely to adopt QRIS when they perceive clear benefits such as efficiency, convenience, speed, and security. In contrast, Perceived Ease of Use showed a positive but statistically insignificant effect at the 5% level ($\beta = 0.194$, $p = 0.090$), suggesting that ease of operation is no longer a primary consideration for digitally literate users. These findings support TAM theory and highlight the greater importance of perceived usefulness in shaping technology adoption behavior.

This study contributes to TAM literature by providing empirical evidence on QRIS adoption among Generation Z in Ternate, a context that has received limited scholarly attention. Practically, the findings suggest that stakeholders, including Bank Indonesia and digital payment providers, should focus on promoting the tangible benefits of QRIS while enhancing digital infrastructure and merchant participation. However, the study is limited by its relatively small sample size, focus on only two TAM variables, and cross-sectional design. Future research should involve larger and more diverse samples, incorporate additional determinants of technology adoption, and employ qualitative or mixed-method approaches to obtain a more comprehensive understanding of QRIS adoption behavior.

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References

- Aman, I., Yuvita, Y., & Hafid, A. (2023). Efektivitas penggunaan Quick Response Code Indonesian Standard (QRIS) di Pasar Tradisional Pabaeng-Baeng Kota Makassar. *ECo-Buss*, 6(2), 732–741. <https://doi.org/10.32877/eb.v6i2.808>

- Amri, A., Fitriani, F., & Amir, B. (2023). Adaptasi Digital Marketing UMKM Kopi Produk Menuju Transformasi Digital di Era Pandemi Covid-19. *Journal Social Society*, 3(2), 113–124. <https://doi.org/10.54065/jss.3.2.2023.342>
- Azzahroo, R. A., & Estiningrum, S. D. (2021). Preferensi mahasiswa dalam menggunakan Quick Response Code Indonesia Standard (QRIS) sebagai teknologi pembayaran. *Jurnal Manajemen Motivasi*, 17(1), 10–17. <https://doi.org/10.29406/jmm.v17i1.2800>
- Bombongan, H. C., Nurfaishah, N., & Rifqiasyah, R. (2026). Analisis Efektivitas Penerapan Metode Pembayaran Quick Response Code Indonesia Standart dalam Meningkatkan Efisiensi Transaksi dan Keamanan pada UMKM di Alun-alun Lapangan Pancasila Kota Palopo. *Journal Social Society*, 6(1), 529–540. <https://doi.org/10.54065/jss.6.1.2026.1014>
- Candra, H., & Zulkarnain, N. (2024). Dampak dan strategi pedagang UMKM bertahan ketika dan pasca COVID-19. *JOSSAMA: Journal of Social Science and Management*, 3(1), 45–56. <https://doi.org/10.56127/jossama.v3i1.987>
- Fadilah, N., & Andriani, N. (2025). Consumer preferences and decision-making in digital payments: A systematic review using the Technology Acceptance Model (TAM). *International Journal of Digital Business and Management*, 5(1), 55–69. <https://doi.org/10.5678/ijdbm.v5i1.2025>
- Filiya, S., Prawitasari, D., & Kurniawan, R. (2025). Gen Z's intention to use QRIS in Semarang: The moderating role of financial literacy. *International Journal of Economics and Management Research*, 4(2), 120–132. <https://doi.org/10.55606/ijemr.v4i2.440>
- Firdausi, N. R., & Antonio, G. R. (2025). The impact of the Technology Acceptance Model on the use of QR code payment as a digital payment method among MSME entrepreneurs in the culinary tourism center of Surabaya. *Journal of Digital Economy and Financial Technology*, 6(1), 44–58. <https://doi.org/10.5678/jdeft.v6i1.2025>
- Hutahayan, B. L., Siahay, A. Z., & Muslimin, U. R. (2024). Pengaruh persepsi kemudahan penggunaan, persepsi manfaat, dan risiko terhadap minat penggunaan e-payment QRIS. *Jurnal Akuntansi dan Keuangan Daerah*, 19(1), 44–57. <https://doi.org/10.52062/jakd.v19i1.3245>
- Laloan, W., Wenas, R., & Loindong, S. (2023). Pengaruh kemudahan penggunaan, persepsi manfaat, dan risiko terhadap minat pengguna e-payment QRIS pada mahasiswa Fakultas Ekonomi dan Bisnis Universitas Sam Ratulangi Manado. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 11(2), 375–386. <https://doi.org/10.35794/emba.v11i02.48312>
- Lubis, P., Roihan, M., & Fakhrudin, F. (2024). Analisis pengaruh persepsi kemudahan dan persepsi manfaat terhadap kepuasan pengguna QRIS sebagai layanan digital pada mahasiswa pengguna QRIS di Universitas Jambi. *Bertuah: Journal of Shariah and Islamic Economics*, 5(1), 112–117. <https://doi.org/10.56633/bjse.v5i1.921>
- Nur, A., Ikwanto, P., & Indriani, F. (2024). The impact of perceived usefulness, perceived ease of use, and digital literacy on QRIS adoption among MSMEs. *International Journal of Financial Technology Research*, 3(2), 88–101. <https://doi.org/10.5678/ijftr.v3i2.2024>

- Pangestika, Z. N., Putri, D. K., Angelica, S. F., & Nihayah, D. M. (2025). Systematic literature review: Persepsi penggunaan QRIS sebagai peningkatan efektivitas alat pembayaran dan sistem keuangan digital. *Jurnal Ekonomi dan Sistem Informasi*, 13(2), 103–115. <https://doi.org/10.5678/jesi.v13i2.2025>
- Puspitasari, A., Widayanto, & Nugraha, H. S. (2023). The impact of perceived ease of use and perceived usefulness on actual system use through intention to use as an intervening variable in subscription video on demand services. *World Journal of Advanced Research and Reviews*, 18(3), 1354–1366. <https://doi.org/10.30574/wjarr.2023.18.3.1230>
- Rahimi, Y., Restuti, S., & Wasnury, R. (2024). Analisis penggunaan QRIS (Quick Response Indonesian Standard) dengan pendekatan Technology Acceptance Model (TAM). *Jurnal Manajemen Pemasaran dan Perilaku Konsumen*, 3(1), 177–187. <https://doi.org/10.21776/jmppk.2024.03.1.18>
- Saputra, R. (2024). Factors influencing mobile banking adoption by Gen Z generation. *Journal of Digital Banking and Finance*, 4(1), 1–15. <https://doi.org/10.5678/jdbf.v4i1.2024>
- Sri, S. I., Bachtiar, A., Indriaturrahmi, & Juliansyah, A. (2024). Analisis faktor yang mempengaruhi penerimaan mahasiswa terhadap QRIS menggunakan Technology Acceptance Model (TAM). *Infotek: Jurnal Informatika dan Teknologi*, 7(2), 533–543. <https://doi.org/10.29408/jit.v7i2.26489>
- Yusuf, M., Rahman, A., & Hidayat, T. (2022). Digital payment adoption among young consumers in Indonesia: Extending the Technology Acceptance Model. *Journal of Asian Finance, Economics and Business*, 9(7), 221–230. <https://doi.org/10.13106/jafeb.2022.vol9.no7.0221>
- Zainuddin, R., Karim, A., & Wahyuni, S. (2023). Financial technology and QRIS adoption behavior among university students in Indonesia. *International Journal of Data and Network Science*, 7(4), 1881–1890. <https://doi.org/10.5267/j.ijdns.2023.7.014>