THE EFFECT OF PERCEPTION OF EASE OF USE, BENEFITS, SUSTAINABILITY RISK, AND ONLINE CUSTOMER SERVICE QUALITY ON CONTINUATION INTENTION TO USE QRIS IN THE DIY COMMUNITY

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Abstract

It is crucial to comprehend the reasons impacting the continuous usage of digital payment systems, especially the Indonesian Quick Response Code (QRIS) in the Special Region of Yogyakarta (DIY), given their rapid expansion. Although QRIS adoption and its effects on SMEs have been studied in the past, there are currently few thorough studies that integrate the influence of perceived benefits, simplicity of use, sustainability risks, and the caliber of online customer support from the viewpoint of the consumer. The purpose of this study is to examine and evaluate how each independent variable affects the DIY community's intention to keep using QRIS. Using a quantitative methodology, this study gathers primary data using a questionnaire survey. SmartPLS 4 software was then used to analyze the data using Structural Equation Modeling (SEM) with Partial Least Squares (PLS). In this investigation, the structural model (inner model) for hypothesis testing and the measurement model (outer model) for validity and reliability were assessed. The findings indicate that although QRIS has been widely used, users' intentions to stick with it are not significantly influenced by perceived sustainability risks, perceived advantages, or perceived ease of use. Nonetheless, the intention to stick with QRIS is strongly influenced by the caliber of online customer support. This implies that, in addition to the factors that initially influenced adoption, sustaining user engagement and promoting long-term QRIS adoption depend heavily on efficient, dependable, and responsive customer assistance. Therefore, in order to guarantee client loyalty and the ongoing use of digital payment technologies, service providers had to give top priority to enhancing online customer care.

Keywords: Perceived Ease of Use, Perceived Benefit, Perceived Sustainability Risk, Quality of Online Customer Service, QRIS, Continuance Intention

INTRODUCTION

Payment system digitalization continues to advance rapidly, with the Indonesian Quick Response Code (QRIS) becoming a key innovation from Bank Indonesia for integrated and secure cashless transactions. According to Bank Indonesia data, the Special Region of Yogyakarta (DIY) has demonstrated rapid adoption of QRIS, reflected in significant growth in transaction value, users, and merchants. The increase in transaction value, users, and merchants of QRIS in DIY reflects positive acceptance among the public and businesses in the region.

While QRIS adoption has shown a positive trend, continuance intention is crucial to ensuring the sustainability of this technology. Various factors, such as perceived ease of use, benefits, continuance risks, and the quality of online customer service, can influence continuance intention. Previous research in DIY has examined aspects of QRIS adoption and factors influencing QRIS use by MSMEs. However, research that comprehensively integrates the influence of perceived ease of use, benefits, continuance risks, and the quality of online customer service on continuance intention among the general population of DIY is still limited. Therefore, the purpose of this study is to analyze the psychological and service factors that influence decisions to continue QRIS use in DIY

REVIEW OF LITERATURE

Model of Technology Acceptance (TAM)

The theory of technology adoption and use created by (Davis, 1989) serves as the foundation for this study. Perceived usefulness (Perceived Usefulness) and perceived ease of use (Perceived Ease of Use) are key components of technology adoption, according to the Technology Acceptance Model (TAM).

Expectation-Confirmation Model (ECM)

Post-adoption behavior is best explained by the Expectation-Confirmation Model (ECM). After the first adoption experience, this idea describes a person's willingness to keep using a system or service (Bhattacherjee, 2001).

Perceived Ease of Use

Perceived ease of use is the degree to which a person thinks that utilizing a technology would be simple and straightforward, according to the TAM (Davis, 1989) and ECM (Bhattacherjee, 2001) theories that encourage continuing use. According to research (Rahmaniar et al., 2025), the technology's usability immediately raises user happiness and perceived performance, which promotes sustained long-term use of QRIS.

Perceived Benefits

Perceived benefit, developed by (Davis, 1989) and ECM (Bhattacherjee, 2001), refers to the degree to which someone thinks that putting a specific system in place would help them perform better and more effectively. Research by (Purnama Sari, 2024) found that if users consistently perceive relevant and significant benefits from a system, they will continue to use it. This means that the greater the benefits consumers perceive from using QRIS, such as efficiency, speed, and others, the greater their perceived satisfaction, leading to repeat use of QRIS as a transaction tool.

Perceived Sustainability Risk

Perceived risk is widely recognized as a behavioral barrier (Kim et al., 2008). Perceived sustainability risk associated with digital payments ranges from initial adoption concerns to concerns arising from intensive use, such as transaction security, data privacy, or potential system failures. Fintech continuance intention for e-wallets is not significantly influenced by risk perception (Chandra & Kohardinata, 2021). Conversely, research (Putri et al., 2023) found that risk influences QRIS usage. The higher the perceived risk consumers perceive from continued QRIS use, the lower their satisfaction and intention to continue using QRIS.

Online Customer Service Quality

Service quality, particularly online customer service, is crucial to the user experience. Responsive, effective, efficient, and reliable customer service can increase customer satisfaction and loyalty, which in turn influences continuance intention (DeLone & McLean, 2003)

RESEARCH METHOD

This study is quantitative in nature. A questionnaire survey was used to gather data. The primary data used through questionnaire distribution is quantitative. The collected data were then processed and presented in an organized and systematic manner. The data was analyzed using SmartPLS4 software and Structural Equation Modeling (SEM) based on Partial Least Squares (PLS).

Data Analysis Stages

Measurement Model Analysis (Outer Model)

This step's objective is to assess reliability and validity. To ascertain and quantify the extent to which indicators of the same construct correlate with one another, convergent validity testing is employed. The main metric is Average Variance Extracted (AVE), and the permissible limit is ≥ 0.50. The Average Variance Extracted (AVE) value, which shows how effectively a construct (latent variable) in the research model can account for more than 50% of the variance in its indicators, is one way to quantify convergent validity. Factor loading values for the construct and its indicators are > 0.70 to be considered ideal. The internal consistency of the indicators measuring a construct is then assessed using a reliability test. One of the main metrics is Composite Reliability (CR). If a structure's CR value is greater than 0.70, the construct is considered to have good reliability.

Structural Model Analysis (Inner Model)

Testing the hypotheses and connections between the constructs is the next step in the structural model evaluation process. This stage is performed after the measurement model has been proven valid and reliable. The R-square test measures how effectively the model can explain the variation in the dependent variable, or how much of the variance in the dependent variable can be accounted for by the independent variables. The more accurately the model can describe the dependent variable, the higher the R2 value, which ranges roughly from 0 to 1. Next, the final stage of data analysis, hypothesis testing, aims to test the previously formulated research hypotheses by examining the p-value of each relationship tested to decide whether or not the validity of the hypothesis is accepted. The significance level for this study was set at 0.05, or 5%. The following hypotheses are formulated:

- H1: The intention to keep using QRIS is positively and significantly impacted by perceived ease of use.
- H2: The intention to keep using QRIS is positively and significantly impacted by perceived benefits.
- H3: The intention to keep using QRIS is positively and significantly impacted by perceived sustainability risk.
- H4: The intention to keep using QRIS is positively and significantly impacted by the caliber of online customer support.

RESULTS AND DISCUSSION

The study, entitled "The Influence of Perceived Ease of Use, Benefits, Sustainability Risks, and Online Customer Service Quality on QRIS Continuation Intentions in the Yogyakarta Special Region," aims to provide insight into the influence of the variables that determine QRIS continuance intentions. The following is a description of the study sample:

- A total of 100 questionnaires were successfully completed and returned from 106 questionnaires distributed to respondents with specific demographic distribution characteristics.
- Respondent categories are summarized in the diagram graph below:

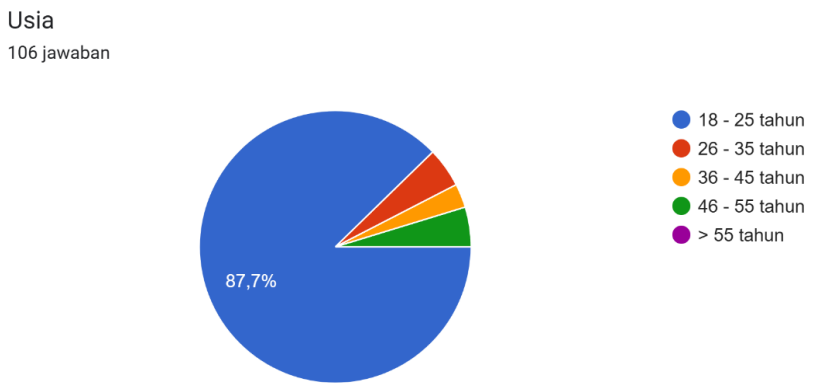

Figure 1.
Respondent Age Category Diagram

Based on the data above, it can be stated that 87.7% of respondents were in the 18-25 age group. This indicates that this study primarily involved younger generations, who may be more familiar with digital technologies like QRIS. Smaller proportions of respondents were found in the 26-35 age groups (4.7%), 36-45 years (2.8%), and 46-55 years (2.8%), with no respondents above 55 years old, indicating that QRIS usage is still uneven across all age groups.

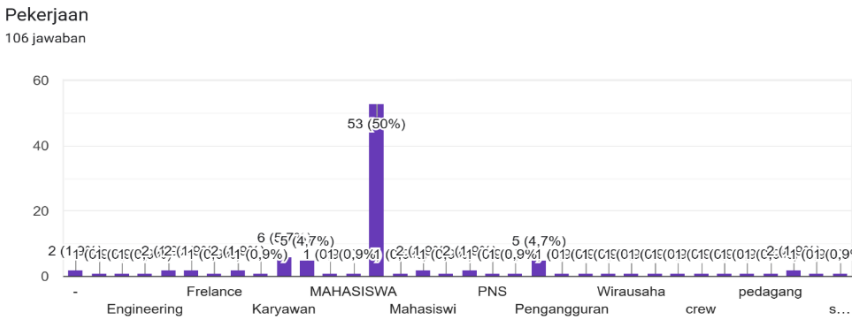

Figure 2.
Job Category Graph

Based on the figure above, it can be concluded that the majority of respondents were students, comprising 50% (53 respondents). This is due to their digital lifestyle and the need for convenient transactions on campus and in their daily lives. Employees (5.7%), unemployed (4.7%), self-employed (0.9%), civil servants (0.9%), and freelancers (1.9%) demonstrate a variety of occupational backgrounds and professions that use QRIS. The presence of respondents from these diverse occupational backgrounds enriches the perspective on perceptions and intentions to continue using QRIS.

The aforementioned sample description leads to the conclusion that the study's respondents satisfied the requirements in line with the goals of the investigation and accurately reflected societal circumstances surrounding the ongoing usage of QRIS.

Measurement Model Analysis (Outer Model)

Convergent Validity Test

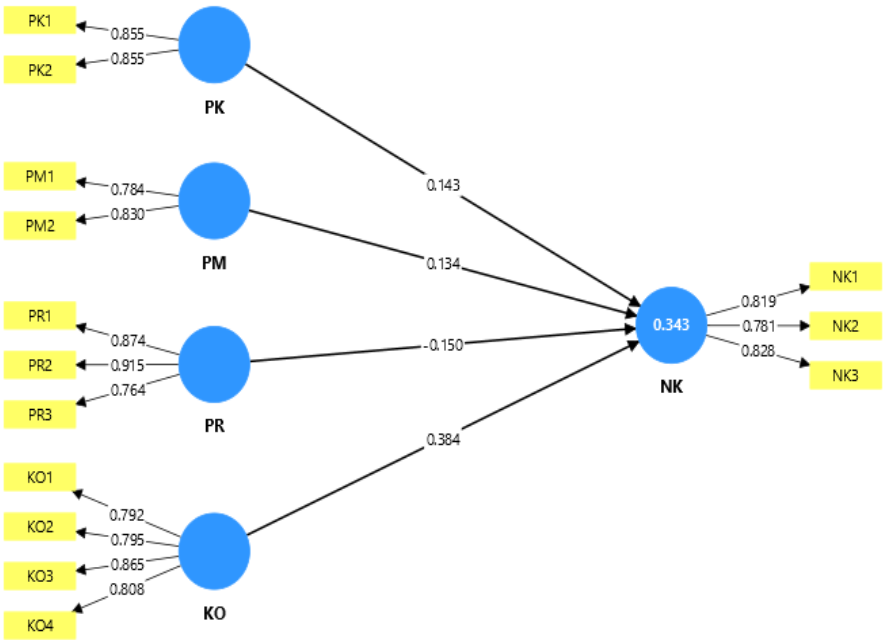

Figure 3.
Loading Factors

All of the indicators match the ideal requirements for convergent validity testing, as evidenced by the data above, which shows that each indicator has a loading factor value of more than 0.70. This means that the indicators used accurately represent the latent constructs they measure.

Table 1.
AVE Value

Construction	Code	Average Variance Extracted (AVE)
Perceived Ease of Use	**PK**	0.731
Perceived Benefits	**PM**	0.652
Sustainability Risk Perception	**PR**	0.729
Online Customer Service Quality	**KO**	0.665
Intention of Sustainable Use	**NK**	0.655

Source: Processed data, 2025

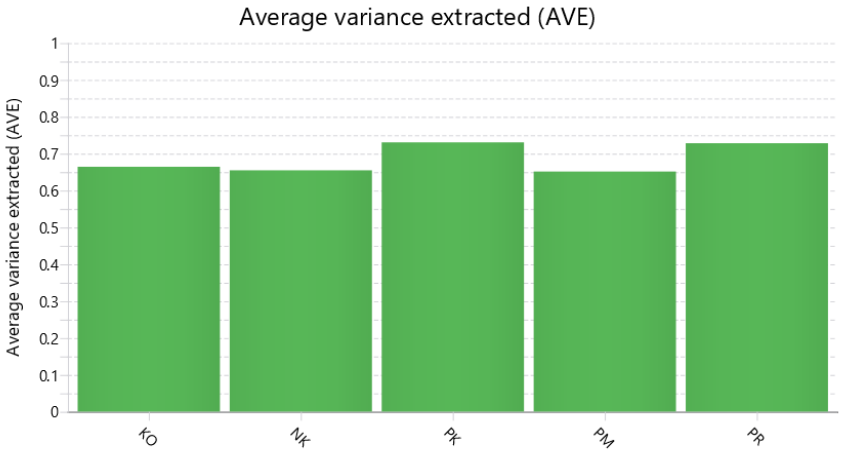

Figure 4.
AVE Value Graph

Considering that the convergent validity test indicated by the AVE value ≥ 0.50 as an acceptable limit, the AVE value of each construct in the data above is above 0.50. Thus, it can be concluded that all constructs included in this research model have good convergent validity, indicating that over 50% of the construct's variance can be explained by the indicators that were employed.

Reliability Test

Table 2.
Composite Reliability Test Results (rho_c)

Construction	Code	Composite reliability (rho_c)
Perceived Ease of Use	**PK**	0.845
Perceived Benefits	**PM**	0.789
Sustainability Risk Perception	**PR**	0.889
Online Customer Service Quality	**KO**	0.888
Intention of Sustainable Use	**NK**	0.851

Source: Processed data, 2025

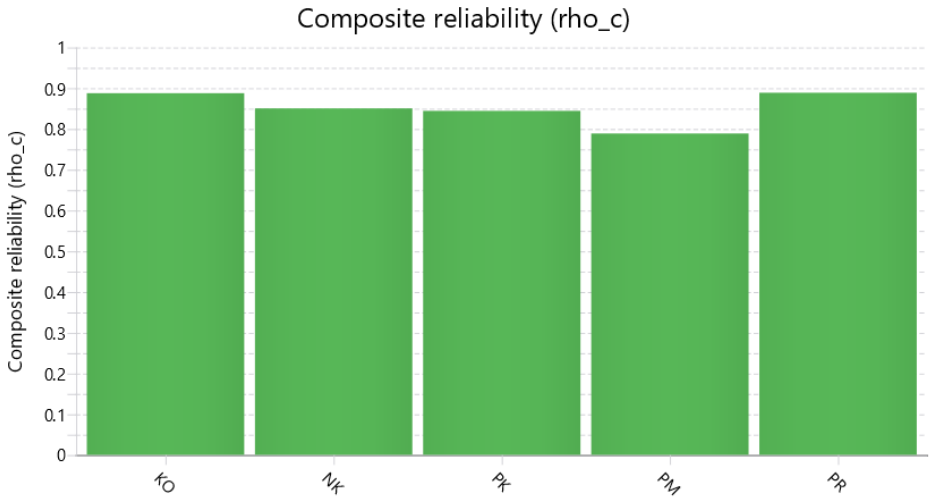

Figure 5.
Composite reliability test graph (rho_c)

Based on the reliability test results shown through the Composite Reliability (rho_c) value, all constructs in this study were proven to have good reliability. The Composite Reliability (rho_c) value was above the threshold of 0.70, which is generally used as an indicator of acceptable internal consistency. Consequently, it can be said that every construct in this study model has great reliability, demonstrating the consistency and dependability of the indicators employed to measure each construct.

Structural Model Analysis (Inner Model)

R-Square/R ^{2} Test

Table 3.
R-Square Test Results

Construct	Code	R-square	R-square adjusted
Intention to Continue QRIS Use	**NK**	0.343	0.316

Source: Processed data, 2025

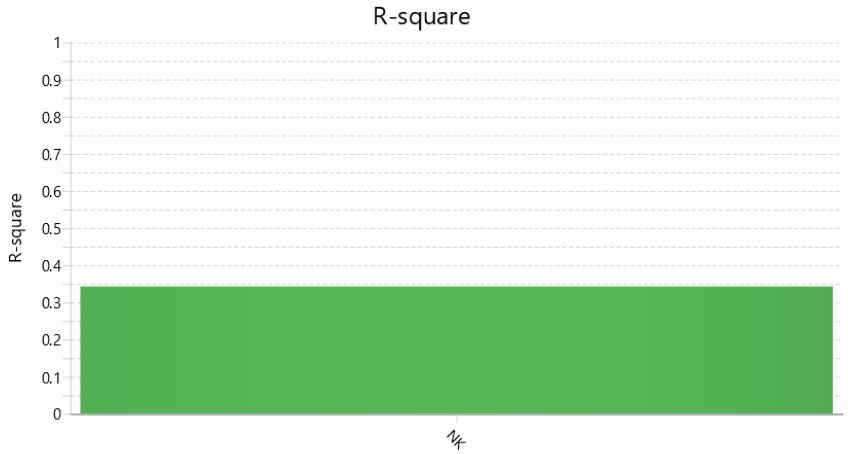

Figure 6.
R-square Test Graph

Figure 7.
Adjusted R-square Test Graph

Based on the results of the R-square test, it is known that the R-square value for the variable of QRIS Continuation Intention is 0.343, with an adjusted R-square value of 0.316. This value indicates that 34.3% of the variation in QRIS Continuation Intention can be explained by independent variables such as Perceived Ease of Use, Benefits, Sustainability Risks, and Online Customer Service Quality included in the model. Meanwhile, the remaining 65.7% is explained by other factors outside this research model. Although the R-square value of 0.343 is above the "weak" threshold (0.25) in the context of social sciences,

this value can be categorized as moderate, indicating that the intention to continue using QRIS in the DIY community can be explained quite well and significantly through the contribution of independent variables.

Hypothesis Testing

Table 4.
Hypothesis Test Results

Code	P values
PK -> NK	0.062
PM -> NK	0.309
PR -> NK	0.147
KO -> NK	0.008

Source: Processed data, 2025

Table 5.
Hypothesis Test Results with P Value

Code	Hypothesis	P values	Sig.	Information
Perceived Ease of Use -> Intention to Continue QRIS Use	H1	0.062	P Value < 5% (α = 0.05)	Rejected
Perceived Benefits -> Intention to Continue Using QRIS	H2	0.309	P Value < 5% (α = 0.05)	Rejected
Sustainability Risk Perception -> Sustainability Intention of QRIS Use	H3	0.147	P Value < 5% (α = 0.05)	Rejected
Online Customer Service Quality -> Intention to Continue Using QRIS	H4	0.008	P Value < 5% (α = 0.05)	Accepted

Source: Processed data, 2025

Based on the results of the hypothesis test with a significance level of 5% (α = 0.05), it was found that of the four hypotheses, only one hypothesis was accepted, namely H4 Quality of Online Customer Service (H4, p = 0.008), because 0.008 <0.05, then the H4 hypothesis has a significant influence on the intention to continue using QRIS. Meanwhile, three hypotheses, including Perceived Ease of Use (H1, p = 0.062), Perceived Benefits (H2, p = 0.309), and Perceived Sustainability Risk (H3, p = 0.147 were rejected because the three hypotheses had a p value > 5%, so they did not have a significant effect on the intention to continue using QRIS. This shows that only the Quality of Online Customer Service has a significant influence on the Intention to Continue Using QRIS, while the variables Perceived

Ease of Use, Perceived Benefits, and Perceived Sustainability Risk do not have a significant influence in the context of continued use of QRIS.

CONCLUSION

The purpose of this study is to examine how perceived ease of usage, benefits, sustainability risks, and quality of online customer service on the continued use intention of QRIS in the Yogyakarta Special Region (DIY). The following conclusions were reached after analysis and discussion:

Perceived Ease of Use did not significantly influence QRIS Continuation Intention. This indicates that although QRIS is perceived as easy to use, this ease of use is not a primary factor driving continuance intention. However, after passing the initial adoption stage, ease becomes less prominent than other factors such as benefits or service quality. This is because users become accustomed to the interface and process, making ease no longer the primary differentiator, motivating them to continue using QRIS.

Perceived Benefit did not significantly influence QRIS Continuation Intention. This indicates that user perceptions of perceived benefits do not significantly influence QRIS continuance intention. Although QRIS offers various benefits, such as transaction speed or payment convenience, these benefits have become basic expectations or are no longer the primary attraction for continued use, so users will seek additional value beyond the basic benefits they already experience.

Perceived Sustainability Risks did not significantly influence Intention to Continue QRIS Use. This indicates that perceived risks associated with continued QRIS use (e.g., data security risks or system failures) don't have a big impact on consumers' intentions to keep using it. This is due to the established level of trust in the QRIS system in general, or because users perceive these risks to be minimized or well-managed. However, these risks do not constitute a major barrier because the perceived potential benefits outweigh the perceived sustainability risks.

Online customer service quality significantly influences Intention to Continue QRIS Use. This indicates that good online customer service, such as responsiveness, information, and helpfulness, is essential for motivating users to keep using QRIS. This is because positive experiences with customer service increase user trust and satisfaction, which in turn strengthens their intention to continue using QRIS.

According to the theory, these results significantly advance our knowledge of technology acceptance models in relation to digital payments, especially QRIS. While the Technology Acceptance Model (TAM) emphasizes convenience and usefulness as key factors in user intention, the results of this study highlight the dominant role of service quality, particularly online customer service, as a driver of user retention. This suggests that in an increasingly competitive digital payment ecosystem, effective and responsive customer service support is becoming more crucial than initial perceptions of product features for user retention.

The practical implication of this research is that QRIS service providers, both Bank Indonesia and fintech companies, need to pay greater attention to improving the quality of their online customer service. Investing in fast, accurate, and accessible customer support will be key to fostering loyalty and retaining the QRIS user base in Yogyakarta. This could include developing diverse communication channels (e.g., chatbots, live chat, social media),

training customer service agents, and providing clear and comprehensive information on QRIS usage and problem-solving.

For future research, it is recommended to expand the scope of the study by including other variables that may influence QRIS continuance intention, such as trust, habit, or social influence. Furthermore, qualitative research can be conducted to gain a deeper understanding of the reasons behind the insignificant influence of perceived ease of use, benefits, and risks on continuance in this study. More specific cross-regional or demographic comparisons could also provide additional insights into the factors influencing QRIS adoption and continuance.

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