

Cashless in Yogyakarta: A Study on the Intention of Cashless QRIS Mosque Donation

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Abstract. In the digital era, people are increasingly demanding digital financial services, including in the field of philanthropy, such as Mosque Donation. Purpose – The paper aims to investigate the Technology Acceptance Model towards the adoption of QRIS digital Payment in Mosque Donation among Muslim society in Yogyakarta. Methodology– The hypothetical model was tested quantitatively by collecting data from 225 respondents in Yogyakarta throughout surveys, and structural equation modelling (SEM) analysis was carried out. Findings – This research found that 1) Perceived Ease of Use has a positive effect on the intention to use QRIS, 2) Perceived Usefulness has a positive effect on the intention to use QRIS, 3) Perceived Security has a positive effect on the intention to use QRIS digital payment. Originality/ Value/ Implication – Previous philanthropy literature only focused on Indonesian Muslims in General. However, this study observes the adoption of QRIS digital payment in philanthropy, specifically in Mosque Donation among Muslim society in Yogyakarta.

1 Introduction

1.1 Digitization of transactions

Indonesia is one of the largest population in the world. The mobile economy report by [1] reported that Indonesia has 171.17 million internet users (64.8%) and 355 million (133%) cellular users. [2] guess that Indonesia Internet economy size in 2025 will achieve \$124 billion or closely 5% of Indonesia's GDP, with the e-commerce sector being the largest contributor to the Internet economy.

The Covid-19 pandemic has accelerated digitalization in the financial and banking sectors. Restrictions on physical activities during the pandemic have forced people to adapt to digitalization, especially by transacting through digital platforms. Along with this, people are also encouraged to conduct financial transactions digitally. On the other hand, the

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financial industry is also required to accelerate the improvement of effective, efficient, and safe digital services.

[3] identified several changes in banking transactions that occurred during the Covid-19 pandemic. First, transactions that were previously carried out mostly at branch offices are now being carried out digitally through mobile banking, internet banking, or call centers driven by artificial intelligence. Second, the COVID-19 pandemic prompted consumers to reduce cash transactions (cashless), and this behavior started to increase in the pre-pandemic period.

The emergence of the millennial generation has encouraged the financial industry to adjust products and services to meet its needs and maintain business existence. The main challenge currently facing the Indonesian financial industry is the limited innovation of products and services and the need to encourage the development of digital services [4].

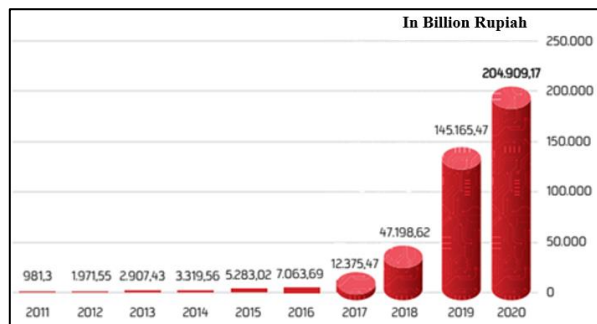


Fig. 1. Value of electronic money transactions 2011-2020 (bank Indonesia).

Traditional mosque financial management is becoming less than ideal in the era of financial digitalization, which will continue to develop. This development is described in the blueprint of Indonesian Payment System 2025, that suggests a solution to the challenges of the digital economy. There are 5 main initiatives in the blueprint, one of which is the implementation of the Quick Response Code Indonesian Standard (QRIS) in the payment system [5]. Based on data from [6], we can see that there has been an increase in the volume of electronic money usage and the number of merchants using QRIS until the end of 2021.

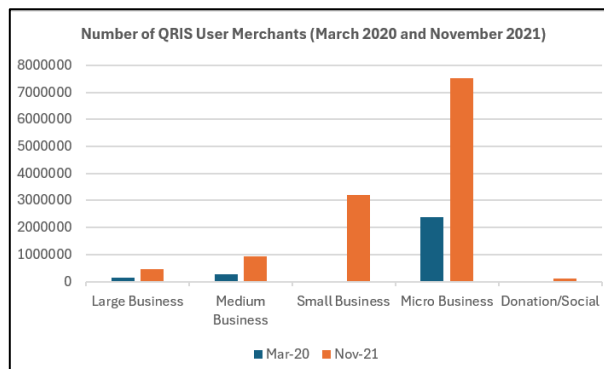


Fig. 2. Data on the development of the number of merchants using QRIS (Katadata).

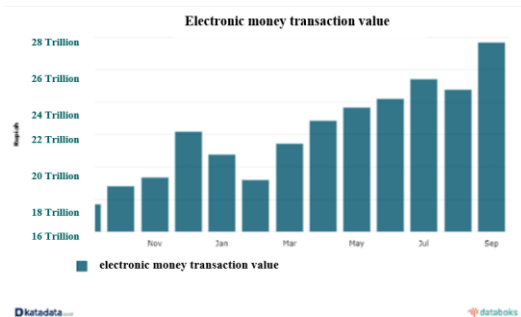


Fig. 3. Data on the development of electronic money volume.

Other data also shows the potential for fundraising for mosque infaq funds in DI Yogyakarta, which is ranked first in the province with the highest mosque-population ratio [7].

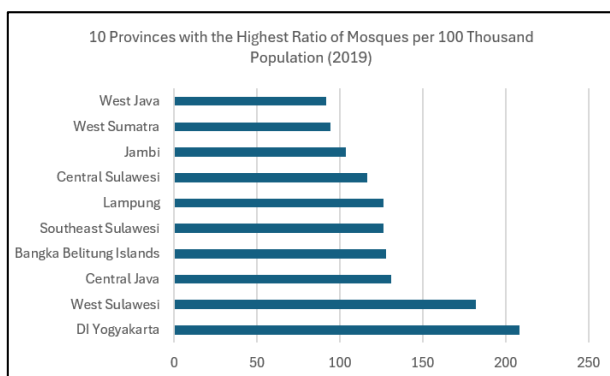


Fig. 4. Data on 10 provinces with the highest mosque-population ratio.

2 Literature review

2.1 Indonesian standard digital payment system and QR code (QRIS)

According to [8], electronic or digital payment systems consist of:

- 1) Digital Wallets
- 2) Digital cash
- 3) Digital accumulating balance system
- 4) Wireless/mobile payment system

The Quick Response (QR) payment system, which is widely adopted in the digital era, makes buying and selling transactions easier. The existence of a digital system implemented by banks and non-sharia financial institutions can make it easier for people to make transactions without using cash [9].

Quick Response Code Indonesian Standard (QRIS) is a QR Code standard designed by Central bank of Indonesia to accelerate digital payments via several server-based cashless medium of transaction [10].

2.2 Policy framework to accelerate digitalization

Accelerating the digitalization of the financial and banking sector is a major task, especially for two regulators, namely Bank Indonesia as the monetary authority and the Banking Services Authority as the regulator and supervisor of the financial services industry. The important role of the two institutions can be seen from the establishment of the Regulatory Sandbox and also regulations related to Digital Financial Innovation by both Bank Indonesia and the Financial Services Authority. In addition, several road maps and blueprints have also been formulated, including :

1. Indonesian Banking Development Roadmap 2020-2025
2. Banking Digital Transformation Blueprint
3. Indonesian Payment System Blueprint 2025.

Based on the study of the policy steps and documents that have been published, it can be concluded that they only focus on the perspectives of industry and regulators and very little depict consumer behavior in adapting to technology.

2.3 Technology adaptation theory

The Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) are two important things to discuss. According to Davis [11], the level of acceptance of information technology is determined by six factors, namely external variables, user perceptions of ease of using technology, user perceptions of technology usability, user attitudes towards technology, behavioral tendencies, and actual usage. According to Venkatesh and Davis[12], from the results of the Unified Theory of Acceptance and Use of Technology (UTAUT) research, four variables influence user acceptance and usage behavior, namely performance expectations, effort expectations, social influence, and facilitating conditions. This variable is moderated by gender, age, experience, voluntary use or not.

The intention of this study is for people to be interested in using QRIS. According to Ferdinand[13], the indicators needed to measure the variable of interest in using are as follows:

- 1) Transactional Interest
- 2) Referential Interest
- 3) Preferential Interest
- 4) Explorative Interest

Perception of ease of use in this study is the belief of QRIS users that using QRIS is not difficult to learn and does not require great effort to be understood by users. Davis et al[11]designed the indicators needed to measure the perceived ease variable are as follows:

- 1) Easy to use
- 2) Controllable
- 3) Easy to learn
- 4) Clear and understandable
- 5) Easy to become skilled
- 6) Flexible

The perception of usefulness in this study is that QRIS users trust that if they use QRIS will improve their performance. The indicators needed to measure the perceived benefit variable[11] are as follows:

- 1) Improving performance
- 2) Speeding up work
- 3) Effectiveness
- 4) Improving productivity

- 5) Useful
- 6) Making work easier

3 Methodology

3.1 Objectives

The primary aim of this study is to delve into how Muhammadiyah Members at DI Yogyakarta perceive and engage with the adoption of QRIS digital Payment in philanthropy. By employing the Technology Acceptance Model, the research try for discover the factors affecting the acceptance and usage of digital payment methods for donations, specifically within the Muhammadiyah community.

3.2 Theoretical model testing

The population-sampling method

The population in this study was the Muslim community in Yogyakarta. The sample determination used the purposive sampling method, and the determination of sample size used the Lemeshow formula[14] because the population was unknown and the population was too large with a changing number. Here is the Lemeshow formula:

$$n = \frac{z^2 p(1 - p)}{d^2} \quad (1)$$

Based on this formula, the minimum number of samples (n) obtained was 96.04. The Muhammadiyah Muslim community dominates Yogyakarta. Therefore, sampling was carried out in Muhammadiyah mosques spread across four districts in Yogyakarta. The research employed a quantitative approach, utilizing questionnaires to gather data from 225 respondents within the Muhammadiyah community at DI Yogyakarta (20 Mousques, Jogja 3, Bantul 8, Sleman 4, Gunung Kidul 2, Kulon Progo 3). Furthermore, structural equation modelling (SEM) analysis was conducted to assess the theoretical model.

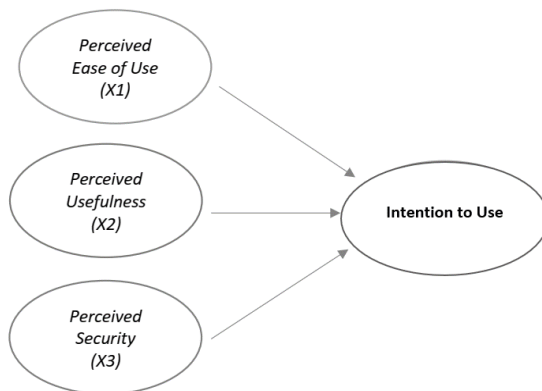


Fig. 5. Research model.

4 Results and discussion

4.1 Finding

4.1.1 Hypothesis test

Inner model test. Structural model testing (inner model) was conducted to determine the relationship between constructs. Model testing in PLS was evaluated using the R-Square (R²) value. The R² value was used to measure the level of variance of changes in independent variables to dependent variables[15].

Table 1. R square test.

	R Square (R ²)	External Factors
Intention to Use	0.605	0.395

The table 1 displays that the R² value for the dependent variable (intention to use) was 60.5%, which meant that the variance of interest in using was explained by the independent variables Perceived Usefulness, Perceived Ease of Use and Perceived Security by 60.5%. While the rest is explained by other variables outside this study, which is 39.5%.

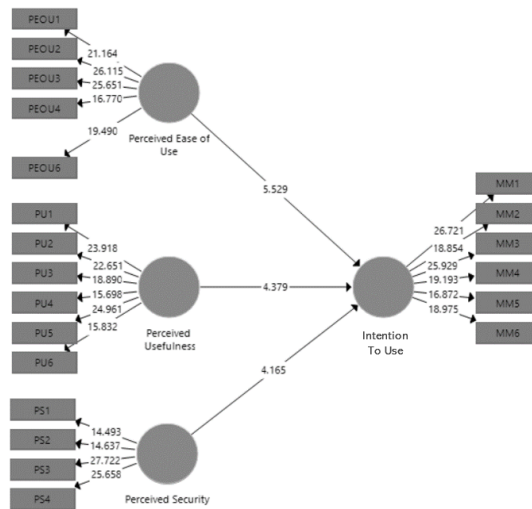


Fig. 6. Inner model tes result.

To find out whether the results are significant, we can see the score of the p-value [17]. The path coefficient is declared significant if the significance value of the p-value is fewer than 0.05 with a significance level of 5% [18]. Therefore, the selection of a significance level was 5% with a t-table assessment provision of 1.96.

4.1.2 Result of hypothesis test

Table 2. Hypothesis test.

	<i>Original sample (O)</i>	<i>T statistics (IO/STDEVI)</i>	<i>P-Value</i>
Ease of Use ► intention to use	0.367	5.757	0.000
Usefulness ► intention to use	0.247	4.109	0.000
Security ► intention to use	0.290	4.364	0.000

Hypothesis 1: the ease of use variable has a positive effect on intention to use QRIS and is significant with a beta coefficient value of 0.367, t-statistics of 5.757, which means >1.96 from a significance level of 5%, and a p-value of 0.000 which means < 0.05 so that the knowledge variable has a positive and insignificant effect on consumer intention so that if the level of ease of use is high then it can affect consumer intention in using QRIS Payment.

Hypothesis 2: The usefulness variable has a positive effect on the intention to use QRIS and is significant with a beta coefficient value of 0.247, t-statistics of 4.109, which means >1.96 from a significance level of 5%, and a p-value of 0.000 which means < 0.05 so that the usefulness variable has a positive and insignificant effect on consumer intention so that if the level of usefulness is high, then it can affect consumer intention in using QRIS Payment.

Hypothesis 3: The security variable has a positive effect on the intention to use QRIS and is significant with a beta coefficient value of 0.290, t-statistics of 4.364, which means >1.96 from a significance level of 5%, and a p-value of 0.000 which means < 0.05 so that the security variable has a positive and insignificant effect on consumer preferences so that if the level of security is high then it can affect consumer intention in using QRIS Payment.

Table 3. Hypothesis test result.

	Hypothesis	Result
H1	Perceived Ease of Use has a positive effect on the intention to use QRIS	Accepted
H2	Perceived usefulness has a positive effect on the intention to use QRIS	Accepted
H3	Perceived security has a positive effect on the intention to use QRIS	Accepted

4.2 Finding

4.2.1 Positive impact of perceived ease of use

The research substantiates the positive influence of perceived ease of use in fostering the intention to utilize QRIS digital payment for donations within the Muhammadiyah community at DI Yogyakarta.

This study states that Perceived Ease of Use has a positive effect on interest in using QRIS as a medium for paying mosque donations. Research data shows that more respondents who use conventional bank M-Banking than Islamic banks use it because of ease of access. QRIS can be an opportunity for Islamic banks to increase their users because QRIS is easy to use. With just a barcode, users can make transactions without administration fees.

4.2.2 Role of perceived usefulness

The study establishes a favorable association between perceived usefulness and the intention to adopt QRIS digital payment, indicating the perceived benefits of the payment method in the context of philanthropy.

The results of the analysis found that Perceived Usefulness has a positive effect on the intention to use QRIS. With cashback and discounts, it can provide benefits to its users. This means that if the level of usefulness of using QRIS is high, the intention to use QRIS as a payment method can increase. Based on these findings, this study recommends that the public use QRIS, which brings benefits and effectiveness in payments.

4.2.3 Significance of perceived security

The research underscores the importance of perceived security in bolstering the intention to embrace QRIS digital payment, highlighting the role of trust and security in facilitating digital payment adoption for charitable contributions.

This study states that Perceived Security has a positive effect on the intention to use QRIS. The background of the study revealed an increase in the use of electronic money, which indicates that the level of public trust in the security of electronic money, namely QRIS, has grown. A widely used technology system is guaranteed to be secure, so users do not need to worry about cybercrime. The increase in the intensity of cybercrime has decreased public trust in banking and electronic money. Therefore, this study recommends that companies that hold QRIS improve their security systems because the better the level of QRIS security, people will continue to be interested in using QRIS.

5 Conclusions

This research found that 1) Perceived Usefulness has a positive effect on the intention to use QRIS; 2) Perceived Ease of Use has a positive effect on the intention to use QRIS; 3) Perceived Security has a positive effect on the intention to use QRIS digital payment. Originality/ Value/ Implication – Previous philanthropy literature only focused on Indonesian Muslims in General. However, this study observes the adoption of QRIS digital payment in philanthropy, specifically for Muhammadiyah members.

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