



## **Preferences of Using Quick Response Code Indonesian Standard (QRIS) Among Students as a Means of Digital Payment**

**Yudistira Andi Permadi<sup>1</sup>, Angestika Wilandari<sup>2</sup>**

Badan Pengawasan Keuangan dan Pembangunan<sup>1</sup>, Universitas Bina Sarana  
Informatika<sup>2</sup>

[permadiandi@gmail.com](mailto:permadiandi@gmail.com)<sup>1</sup>, [angestika.ael@bsi.ac.id](mailto:angestika.ael@bsi.ac.id)<sup>2</sup>

### **ABSTRACT**

*QRIS is a digital payment instrument that has provided positive signals since it was launched. It is known that the demographics of QRIS users are quite diverse, including students. This study aims to determine students' preferences in Jabodetabek in using QRIS as a means of digital payment. Preference or interest in using QRIS that arises in this study is measured using the following four characteristics: 1) Easiness Characteristic; 2) Usefulness Characteristic; 3) Risk Characteristic, and 4) Trust Characteristic.*

*The research results by distributing questionnaires conducted showed that of 154 respondents, the majority felt the easiness and benefits of the QRIS. However, even though it is easy and useful, respondents are still cautious and show a lack of trust in using QRIS because it is considered quite risky.*

**Keywords:** QRIS, Digital Payment

### **INTRODUCTION**

To support the achievement of an integrated payment system, Bank Indonesia established a standard QR code payment to facilitate digital payment transactions in Indonesia, namely QRIS (Quick Response Indonesia Standard) (Saputri, 2020). In practice, QRIS is a non-cash payment method considered more practical and efficient (Goleman et al., 2018). The difference between QRIS and the QR Code is that by using QRIS, providers of goods and services or merchants do not need to have various QR Codes from different code issuers. According to the Governor of Bank Indonesia, QRIS has the spirit that can be called universal, easy, profitable, and direct. It means that the emergence of QRIS aims to use the available transaction codes through different payment services (Mulia, 2019). So it is hoped that with only one QR Code, consumers can comfortably transact without being constrained.

QRIS was born from the previous trend of non-cash payments, which can be electronic money. Electronic money, in this context, is a form of payment using chip-based e-money card (offline) or server-based (*online*) such as *e-wallet* or *mobile*

*banking* (Sihaloho et al., 2020). Digital wallets, referred to *e-wallet*, are often used for transactions such as OVO, DANA, GOPAY, Link-Aja applications, and others (Mayanti, 2020). The implementation of electronic money as a payment method is proven to directly or indirectly facilitate consumers and providers of goods or services to make transactions. So it can be said that QRIS is a technological innovation used as a digital payment method in general (Ruslan, Karmawan, et al., 2019).

Bank Indonesia has recorded quite optimistic of QRIS usage data from January 1, 2020 to July 3, 2020. The use of QRIS at large merchants reached 19,706, at medium merchants reached 333,392, Small and Medium Enterprises (SMEs) reached 685,328, Micro, Small, and Medium Enterprises (MSMEs) reached 2,603,516, and the merchant for donations purpose reached 9,288 (Ningsih et al., 2021).

Users of QRIS have various demographics, not limited to only SMEs or SMEs. One of the demographics of QRIS users is consumers who are students. With the use of technology-based QRIS, it is very easy for students to access and make transactions using QRIS. This condition is due to the closer age of students and exposure to technological innovations. It is known that in 2019 the number of registered students in DKI Jakarta was 724,088 people with details of new students reached 182,726 people. For West Java, it is known that the number of registered students is 767,149 people with details of new students reached 204,191 people. The highest number of registered students is in Banten reached 1,270,258 people with details of new students is 155,840 people (Kemenristekdikti, 2019). According to these data, it can be said that one of the largest QRIS users can be students who make purchases at *merchants* or SMEs / SMEs.

In using QRIS as a transaction medium, of course, consumers will be based on certain perceptions or characteristics that encourage their preferences for transactions using QRIS. The benefits offered by QRIS can affect consumer perceptions or characteristics. Elaborating the definition of perception or characteristics can be reduced to several variables, with the aim of capturing objects or information on events experienced by humans in their environment. These perceptions or characteristics will eventually lead to tendencies and generate interests or preferences. In the case of using electronic money or QRIS, there are several perceptions or characteristics that can be used to measure how much consumer interest and preferences are in using it. One of the characteristics or perceptions that are commonly used to measure preferences are the characteristics of usefulness and easiness characteristics (Ramadhan, 2016). In addition to the easiness characteristics and usefulness, other characteristics can be added as needed.

Based on research background above, starting from the trend of using QRIS which looks very optimistic, this study focuses on the preferences for using QRIS among students. Based on the available data, students are one of the largest

market segments for the use of QRIS. However, this study only took samples for students in the Greater Jakarta area. Considering that apart from DKI Jakarta and West Java, which have quite a large number of registered students compared to other regions, Jabodetabek is an area that is quite active and massively exposed to transactions using QRIS. The additional characteristics other than the usefulness and ease of measuring interest or preferences in this study are the characteristics of trust and risk.

## LITERATURE REVIEW

NAME OF RESEARCHERS	TITLE OF RESEARCH	RESEARCH METHOD	RESULTS
OKTOVIANA BANDA SAPUTRI (2020)	Preferensi Konsumen Dalam Menggunakan QRIS Sebagai Alat Pembayaran Digital  (Consumer Preferences in Using QRIS as a Digital Payment Tool)	A simultaneous quantitative research. Research variables consist of perceptions of easiness, trust, usefulness, and risk.	Through simultaneous testing it is known that all variables affect preferences in using QRIS, while through partial testing it is found that there is only one influential variable, namely usefulness
HUTAMI NINGSIH, ENDANG SASMITA, SARI (2021)	A. Pengaruh Persepsi Manfaat, Persepsi Kemudahan M. Penggunaan, Dan Persepsi Risiko Terhadap Keputusan Menggunakan Uang Elektronik (QRIS) Pada Mahasiswa  (The Effect of Perception of Usefulness, Perception of Ease of Use, and Perception of Risk on Decisions to Use Electronic Money (QRIS) Among Students)	Quantitative approach with causal study research method. Quantitative data analysis includes data quality test (Validity, Reliability), classical assumption test (Normality, Multicollinearity and Heteroscedasticity), correlation and determination analysis and multiple linear regression as well as hypothesis testing t-test (partial) and F-test (simultaneous) with $\alpha = 5\%$ .	Based on the results of the study, perception of usefulness, perception of ease of use, and perception of risk both partially and simultaneously have a significant positive effect on the QRIS decision variables among students.

ZIYADATUL HUSNA (2020)	Analisis Faktor- Faktor Penentu Masyarakat Muslim Terhadap Preferensi Metode Pembayaran Infaq Dan Shadaqah Melalui Kode QRIS	This study aims to examine and explain the effect of trust, competitiveness, satisfaction, social factors on preferences for infaq and shadaqah payment methods through QRIS code	Trust, competitiveness, and satisfaction affect payment preferences using QRIS Code. The social factor variable does not show any influence on the preference for using QRIS Code
	(Analysis of Determinant Factors of Muslim Society on Infaq and Shadaqah Payment Method Preferences Through QRIS Code)		

By looking at the backgrounds of previous studies, this study aims to examine the preferences for using QRIS among students. The characteristics that will be studied are special characteristics in the form of characteristics of easiness, trust, usefulness, risk, and interest in using QRIS in making transactions or payments.

## RESEARCH METHOD

Research method in this research is quantitative by using the description of descriptive statistics. To support the research method, questionnaires and in-depth interviews were conducted as the basis for primary data and literature review as the basis for secondary data. The distribution of questionnaires is carried out online to students at one of the State Universities (PTN) and one of the Private Universities (PTS) in Jabodetabek without any restrictions on criteria in the hope of reaching a wider range of respondents. In addition, the distribution of questionnaires is carried out online to support government programs in breaking the Covid-19 distribution chain. In-depth interviews will be conducted if the results of the questionnaire are found that are deemed necessary to further explore the preferences of existing respondents. Researchers managed to get 154 respondents with student status which was then referred to as the research sample. The limitation of time of the existing research is the main basis for the use of quantitative research methods based on descriptive statistical analysis.

## RESULT AND DISCUSSION

Respondents in this study came from one of the State Universities (PTN) and Private Universities (PTS) in Jabodetabek totaling 154 people. The selection of the questionnaire distribution environment in Jabodetabek with a consideration that students in the Jabodetabek area were more familiar with the digital payment system in the form of QRIS. The research discussion will begin with the description of general characteristics in the form of gender, level of lectures, domicile, and level of income including their own money. After an explanation of the general characteristics, it is followed by a question of specific characteristics to dig deeper into the respondents' preferences for using QRIS.

**Table 1. Respondents Based on Gender**

<i>Gender</i>	<i>Respondents</i>	<i>Percentage (%)</i>
<i>Male</i>	24	15.6%
<i>Female</i>	130	84.4%
<i>Total</i>	154	100

source: Questionnaire processing result (2021)

From table 1 above, it is known that the majority of respondents in this study were students with female approximately 84.4%.

**Table 2. Respondents Based on Level of Lectures**

<i>Level of lectures</i>	<i>Respondents</i>	<i>Percentage (%)</i>
<i>Level 1</i>	104	67.5%
<i>Level 2</i>	44	28.6%
<i>Others</i>	6	3.9%
<i>Total</i>	154	100

source: Questionnaire processing result (2021)

Table 2 above shows a description of the respondent's level of lectures. In this characteristic, the researcher opens opportunities for five characteristics, namely: 1) Level 1 for semesters 1 and 2; 2) Level 2 for semesters 3 and 4; 3) Level 3 for semesters 5 and 6; 4) Level 4 for semesters 7 and 8, and 5) above Level 4. However, based on the processing of questionnaire data, it is known that the majority of respondents are in Level 1 for semesters 1 and 2 of 67.5%. While the other 3.9% showed the characteristics of the respondent's lectures level starting from Level 3 to above Level 4.

The next general characteristic that was successfully obtained by the researchers was the domicile characteristic. From 154 respondents, it was known that 83.1% lived in Greater Jakarta, and 16.9% lived in Non-Jabodetabek. This means that 26 students domiciled outside Jabodetabek are involved in lecture activities at State Universities (PTN) and Private Universities (PTS) that are located within Jabodetabek area.

Regarding the characteristics of the income level, the researcher divides the income level into the following three levels: 1) Income level < IDR 5,000,000; 2) Income level between IDR 5,000,000 to IDR 10,000,000; then 3) Income level above IDR 10,000,000. The level of income is either in the form of pocket money obtained from family or income earned independently. The researcher realizes that there are shortcomings in determining the characteristics of the income level, where the first income level takes a figure below IDR 5,000,000. Given the financial condition of students, researchers can be more realistic to take the lower limit of the characteristic level of income. It is hoped that the next research can change the category of income level in this study.

Although characteristically the income level of the majority of respondents totalling 98.1% is below IDR 5,000,000, 69.5% of respondents are known to have up to 3 digital wallets or mobile banking applications. Ownership of a digital wallet or mobile banking application is the next characteristic in this study. From 154 respondents, it is known that 107 respondents have a digital wallet or mobile banking application up to 3 applications, 21 respondents have more than 3 applications, and 26 respondents are known to have no digital wallet or mobile banking application.

Ownership of a digital wallet or mobile banking application is closely related to respondents' knowledge of QRIS. Among 154 respondents, 40.3% said they did not understand what QRIS was, while the remaining 59.7% had a fairly good understanding of QRIS. Among 62 respondents who do not understand QRIS, 36 of them already have a digital wallet or mobile banking application. However, after conducting in-depth interviews, it can be concluded that some of the respondents did not understand the QRIS features contained in their digital wallet or mobile banking applications.

In addition to dividing the characteristics in general characteristics, researchers also extract information using the following special characteristics:

Table 3. Special Characteristics of QRIS Usage Preferences

Special Characteristics	Definition	Parameter	Respondents
Easiness	The characteristic of	1 = Very not easy	6
	describes whether	2 = Not easy	5
		3 = Less easy	32

	the QRIS	4 = Easy	63
	technology/system	5 = Very easy	48
	is user friendly among students		
<b>Trust</b>	The characteristic of trust describes whether respondents feel safe and trust to transact using QRIS	1 = Very unsafe 2 = Unsafe 3 = Less safe 4 = Safe 5 = Very safe	1 4 58 62 29
<b>Usefulness</b>	The usefulness characteristic describes whether the respondent feels that he or she has benefited when transacting using QRIS	1 = Very useless 2 = Useless 3 = Less useful 4 = Useful 5 = Very useful	1 2 38 71 42
<b>Risk</b>	Risk characteristic describes whether respondents feel they will get risk when transacting using QRIS	1 = Very risky 2 = Risky 3 = Quite risky 4 = Less risky 5 = Very unrisky	1 13 70 59 11
<b>Interest</b>	The characteristic of interest describes whether the respondent feels interested and will continue to use QRIS in transactions	1 = Very not interested 2 = Not interested 3 = Less interested 4 = Interested 5 = Very interested	2 4 42 63 43

source: Questionnaire processing result (2021)

As described in table 3, this study uses five specific characteristics which include the characteristics of easiness, usefulness, trust, risk, and interest. In terms of easiness, 40.9% of respondents answered that transacting using QRIS was relatively easy, 31.2% of respondents answered very easy, and 20.8% of respondents answered less easy. Although the percentage of respondents who



answered easy was higher than very easy, this was in line with the expectations of the regulator who initiated the QRIS system. Saputri (2020) argues the regulator hopes that QRIS can provide convenience to consumers because payment system service providers only provide one QR code service for various types of digital wallet or mobile banking applications.

The next special characteristic is the aspect of trust, where after feeling the ease of transacting using QRIS, trust should arise from respondents every time they transact with QRIS. Respondents' trust is also measured based on the sense of security that arises when transacting using QRIS. From the results of the study, it is known that 40.3% of respondents choose to trust and feel safe when transacting with QRIS. This is in line with the results of filling out the respondent's questionnaire regarding the characteristics of easiness. This means that respondents who find it easy to transact with QRIS will feel safe and trust to continue transacting using QRIS in the future. Husna (2020) in his research states that the trust variable will affect consumer preferences in using QRIS as a payment method.

Unlike the results of the easiness characteristics, in processing the questionnaire data for the characteristics of trust and security, 37.7% of respondents felt less trust and less secure when transacting using QRIS. Then as many as 18.8% of respondents chose to strongly believe and feel very safe to transact with QRIS. When elaborated with the results of the characteristics of easiness, some respondents who choose very easy to transact with QRIS have a tendency to lack trust and feel less secure when they have to transact using QRIS. Husna (2020) argues that QRIS is a payment service with new innovations, so that consumers still have a preference for traditional transactions. This condition can affect the lack of trust and sense of security of consumers to choose to transact using QRIS.

The next special characteristic in this research is the usefulness characteristic. After respondents feel the ease and the emergence of trust, respondents are expected to feel the benefits of a new payment system using QRIS. From the results of the questionnaire, 46.1% of respondents chose the perceived benefits when transacting using QRIS. Respondents who chose to feel the benefits were then conducted in-depth interviews, so that it was known that the main reason they felt the benefits was that transactions became more effective and efficient. In addition, respondents do not need to carry a lot of cash or cards for transactions, only armed with cell phones, respondents can make transactions quickly. So that the fear of losing large amounts of cash does not arise in the respondents. Not only limited to the benefits of efficiency and effectiveness, another benefit felt by respondents is that using QRIS will get more promos or discounts from the stores they visit.

In addition to feeling the easiness and benefits that exist, researchers also identify special characteristics in the form of risks. In line with the characteristics



of trust and a sense of security, risk characteristics are added to see if respondents feel it is risky to make transactions using QRIS. From the results of the research questionnaire, it is known that the majority of respondents, 45.5%, think that although QRIS is useful and brings convenience, it does not mean that it cannot pose risks. This means that as many as 70 respondents have the view that transacting using QRIS is quite risky. Ningsih et al. (2021) argue that the characteristics of risk greatly affect the characteristics of trust. In line with this study, although as many as 40.3% of respondents chose to believe and feel safe using QRIS, not far from that figure as many as 37.7% of respondents chose to feel less trust and safe to transact using QRIS. So it can be concluded that respondents who have the opinion that transacting using QRIS is quite risky, will tend to feel less secure to transact using QRIS. During in-depth interviews, respondents answered that the biggest risk that may arise from using QRIS is that personal data becomes less secure so that it is easy to steal and misuse.

Referring to the characteristics of interest, as many as 40.9% of respondents chose to be interested in continuing to use QRIS as a transaction tool or payment instrument. Although the majority of respondents feel interested, there are still 27.3% of respondents who choose to be less interested in transacting using QRIS. This interest is based on the main factors in the form of convenience and usefulness, although it is unavoidable that transactions using QRIS still open up risk opportunities. The convenience and usefulness of QRIS was felt by respondents during the Covid-19 pandemic, where the government was very aggressively recommending cashless payment. For respondents who choose to be less interested in using QRIS, among others, because they do not feel there is an urgent need to use QRIS. This means that respondents can still use payments via debit cards or credit cards if payments using cash are not available.

## CONCLUSION

The conclusions in this study are as follows:

1. Despite student respondents already have a digital wallet or *mobile banking application*, there are still those who do not understand well the definition and benefits of using QRIS. Respondents who have applications but do not use the QRIS feature, among others, still make payments via transfers between accounts, cash payments, and payments using credit cards or debit cards. Respondents did not get good education that every digital wallet or mobile banking application has been equipped with the QRIS feature, making it easier for consumers to make payments at outlets that already have a *barcode* payment that reads "Support QRIS".
2. The ease of transacting using QRIS will create trust and a sense of security to transact again with QRIS in the future. However, in this study there were 37.7% of respondents who felt less secure and less confident to transact with QRIS even though they had felt the ease of transacting using QRIS.

3. The main benefit felt by respondents with QRIS is that transactions become effective and efficient. Respondents do not need to carry cash or cards in excess, because QRIS can be easily accessed via mobile phones. Another perceived benefit is that by using QRIS, respondents are more likely to get promos or discounts.
4. The characteristic of trust is in line with the characteristic of risk. In this study it was found that respondents who felt that transacting using QRIS was quite risky also believed that transactions using QRIS tended to be less secure due to steal and misuse of personal data.
5. Of all the identified special characteristics, the majority of respondents are interested in continuing to transact using QRIS for the convenience and benefits provided.

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