

CONSUMER DECISION ANALYSIS USING QRIS AS A DIGITAL PAYMENT TOOL

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Abstract

Digital technology has experienced rapid development in the last few decades. Increasingly developing technology has also entered the realm of finance and payment systems. A digital-based payment system can make it easier for people to meet their diverse needs and live their lives more effectively and efficiently. In the digital payment system, there are non-cash (cash) and cash (cash) payments. Non-cash digital payment methods (cashless) are one type of payment that is popular with the public because they can minimize the spread of viruses through money intermediaries, one of which is the use of the Indonesian Standard Quick Response Code (QRIS). This research aims to analyze consumer decisions to use QRIS as a digital payment tool. The sample in this research was 100 respondents. This research uses quantitative methods with descriptive research type. The sampling technique uses non-probability sampling using purposive sampling technique. The method used in data collection was a questionnaire with a Likert scale and data processing used SPSS 29 software to carry out validity testing of an instrument. Validity tests were carried out on the indicators in the online questionnaire which had been filled in by respondents.

Keywords: Consumer Preferences; QRIS; Consumer Behavior

1.Introduction

Digital technology is an information technology that prioritizes activities carried out by computer/digital rather than using human power (Muhammad, 2019). Digital technology has experienced rapid development in the last few decades. Increasingly developing technology has also entered the realm of finance and payment systems. A digital-based payment system can make it easier for people to meet their diverse needs and live their lives more effectively and efficiently (Tarantang et al., 2019).

Technological developments continue to develop from time to time, one form of current technological development and progress. The very rapid development of technology is marked by the use of the internet in various business activities. *Financial Technology (Fintech)* is a new development of the financial services industry in the form of a concept that adapts technological developments combined with the financial sector which includes innovation in the hope of providing a more effective, efficient, safe and modern financial transaction process (Marginingsih, 2019). Some fintech services include: payments, investments, loans, transfers, financial planning, and financial product comparisons.

In the digital payment system, there are non-cash (cash) and cash (cash) payments. For non-cash payment transactions, consumers can use facilities, such as the Indonesian Standard Quick Response Code (QRIS). QRIS is a QR Code-based payment that complies with payment system standards in Indonesia, developed by Bank Indonesia and the Indonesian Payment System Association (ASPI). One of the effectiveness of the service that is the advantage of QRIS compared to previous cashless services is that merchants do not need to prepare many payment applications, they only provide one QR Code in the shop and the QR Code can be scanned by consumers with various payment applications on smartphones (Sihaloho et al., 2020) .

2. Literature Review

2.1 Consumer Behavior

QRIS is a QR Code-based payment that complies with payment system standards in Indonesia, developed by Bank Indonesia and the Indonesian Payment System Association (ASPI). One of the effectiveness of the service that is the advantage of QRIS compared to previous cashless services is that merchants do not need to prepare many payment applications, they only provide one QR Code in the shop and the QR Code can be scanned by consumers with various payment applications on smartphones (Sihaloho et al., 2020) .

2.2 Consumer Preferences

Based on the factors that influence consumer behavior, personal factors have an important role as one of the personal factors that drives consumer behavior is purchasing decisions. Purchasing decisions are a reflection of consumer preferences. Decisions are one of the activities carried out by every person, at all times and in all places, these decisions include decisions involving individual activities (Subianto, 2019). Consumer preference is a decision or assessment regarding whether someone likes or dislikes a product (Puspitasari

& Nirawati, 2022). Consumer preferences are very important in marketing because they are related to the company's success in achieving predetermined goals, namely consumer purchasing decisions based on complete, meaning that a person can always make a decision between two or more options offered to them and it is hoped that the person can state their preferences clearly and complete.

3. Materials and Methods

The research object that you want to research is digital payments. The locations chosen by this research are in the DKI Jakarta area and its surroundings. According to Maholtra (2020), the object of research is a research methodology that seeks to measure data, and usually applies some form of statistical analysis, so the object of this research is consumer decisions to use QRIS as a means of daily payment in the DKI Jakarta area and its surroundings. This research was carried out by distributing questionnaires online to QRIS users. This research was carried out approximately from January to May 2024.

3.1 Design Study

The research design in this study uses quantitative research methods. According to Sugiyono (2019), it is a research method based on the philosophy of positivism, as a scientific or scientific method because it meets scientific principles in a concrete or empirical way, objectively, measurably, rationally and systematically. In this research, 1 variable is used, namely, the Consumer Decision variable (X).

3.2 Data Analysis

According to Sugiyono (2019), data analysis is the process of systematically searching and compiling data obtained from interviews, field notes and other materials, so that it can be easily understood, and the findings can be informed to other people. The data analysis technique in this research is quantitative with descriptive analysis techniques.

3.2.1 Descriptive Analysis

According to Sugiyono in Salsabila & Sari, (2022) descriptive analysis is the process of analyzing data by explaining or describing data that has been collected objectively, without intending to make generally applicable conclusions or generalize them. This method aims to describe or illustrate the data that has been collected, then classify it, then formulate it so that you get a clear picture of the problem being studied.

3.2.2 Validity Test

According to Ghazali (2019), the validity test in a study is used as a measure of whether a questionnaire is valid or not. The validity test in this research is used to ensure that the measurement instruments and methods that researchers use truly describe the concept of people's decisions regarding the use of QRIS as a digital payment tool for carrying out transactions.

In this research, the tool used was SPSS 29 software to carry out validity testing of an instrument. The validity test was carried out on the indicators in the online questionnaire that had been filled in by the respondent. The level of validity

can be determined using the following formula:

$$r = \frac{n (\sum xy) - (\sum x) (\sum y)}{\sqrt{[n(\sum x^2)][n(\sum y^2) - (\sum y)^2]}}$$

Information:

N: Number of respondents to be tested

X : Item score

Y: Total score

To determine whether or not an item is suitable to be used, a significant coefficient test is usually carried out at a significance level of $\alpha = 5\%$ (0.05). If the calculated r value $> r$ table, then the item is declared valid. If the calculated r value $< r$ table, then the item is declared invalid (David & Ahmad, 2024).

3.2.3 Reliability Test

According to Ghazali (2019) reliability is actually a tool for measuring a questionnaire which is an indicator of a variable or construct. Reliability testing in this research aims to ensure that the data collected is consistent or stable and reliable. This helps validate the accuracy of research results regarding the impact of QRIS users on people's decisions. The reliability test was carried out using the Cronbach's Alpha test. So it is concluded that a variable is said to be reliable if it provides a Cronbach alpha value > 0.6 in this research using SPSS with the following formula:

$$r_{11} = \left[\frac{k}{(k-1)} \right] \left[1 - \frac{\sum \sigma_b^2}{\sigma_t^2} \right]$$

Information:

r_{11} : Instrument Reliability

k : Number of Statement Items

$\sum \sigma_b^2$: Number of Item Variants $\frac{2}{b}$

σ_t^2 : Total Variance $\frac{2}{t}$

4. Results

Based on the data that has been collected, answers from 100 respondents. Obtaining data from the results of respondents' answers when filling out the questionnaire, data was obtained on respondents' characteristics based on age, gender, final education, profession, income and domicile. A description of the characteristics of respondents is presented as follows:

Table 4.1 Respondent Characteristics

Respondent Characteristics	Criteria	Frequency	Percent %
Gender	Man	17	15.9%
	Woman	83	77.6%
	Total	100	100
Age	17-25 Years	2	2.08
	26-35 Years	31	32.30
	36-45 Years	30	31.25
	>45 Years	12	12.5
	Total	100	100
Last education	Secondary school	22	20.7%
	Bachelor/Diploma/Academy	75	70.1%
	Postgraduate	3	2.8%
	Total	100	100
Profession	Student/Students	49	45.8%
	Employee	20	39.6
	Businessman	6	5.6%
	Housewife	8	7.5%
	Other	17	15.9%
	Total	100	100
Income	Under 1,000,000	38	35.8%
	1,500,000- 2,500,000	21	19.8%
	3,000,000-5,000,000	20	18.7%
	5,000,000 >	21	19.6%
	Total	100	100
Domicile	North Jakarta	20	20%
	South Jakarta	21	21%
	Central Jakarta	3	3%

West Jakarta	12	12%
East Jakarta	40	40%
Thousand Islands		
Total	100	100

Based on data from Table 4.1. Respondents based on gender in this study consisted of 83 women with a percentage of 77.6% more than men. The age of QRIS users can be seen in table 4.1. The most were 17-25 years old, 69 people. Final user education can be seen in table 4.1. The highest number of graduates/diplomas/academics is 75. If you look at table 4.1, the profession of QRIS users is the highest number of students/university students is 49 people with a percentage of 45.8%. QRIS user income can be seen in table 4.1. the most is Under Rp. 1,000,000 as many as 38 with a percentage of 35.8%. Consumers who live in DKI Jakarta, especially in East Jakarta, dominate the use of QRIS, namely 40 with a percentage of 40%.

The results of the questionnaire on Consumer Decisions to Use QRIS as a Digital Payment Tool based on dimensions or sub-variables such as technological factors, social factors, economic factors and consumer preferences have been obtained based on the results of a questionnaire that has been distributed to 100 respondents using a purposive sampling technique.

1. Technological factors

Based on responses from respondents, results were obtained regarding Consumer Decisions to Use QRIS as a Digital Payment Tool, especially in terms of dimensionstechnological factors as follows:

Table 4.2 Dimensions of Technological Factors

No	Statement	Answer Score										Total Score	Average
		STS		K.S		T.S		S		SS			
		1		2		3		4		5			
		N	%	N	%	N	%	N	%	N	%		
1	QRIS is easy to access from anywhere and comfortable to use	0	0%	0	0%	2	2%	37	37%	56	56%	434	4.34
2	QRIS speeds up the payment process	0	0%	0	0%	3	3%	36	36%	58	58%	443	4.43

3	I feel that transactions with QRIS are safe	0	0%	0	0%	2	2%	43	43%	47	47%	413	4.13
4	QRIS is easy to understand	0	0%	0	0%	2	2%	44	44%	51	51%	437	4.37
5	I believe QRIS protects the security of personal information	0	0%	0	0%	1	1%	55	55%	34	34%	391	3.91
6	I use QRIS because it is used by many merchants.	0	0%	0	0%	2	2%	42	42%	50	50%	424	4.24
Total													4.23

In table 4.2 of the six statement indicators in the technology factor dimension, it can be seen that QRIS speeds up the payment process because it only requires one scan to complete the transaction. Apart from that, QRIS is easy to access from anywhere because it can be used with various payment applications on smartphones. QRIS is also comfortable to use because its interface is intuitive and easy to understand for users from various circles. People choose to use QRIS because many merchants have accepted this payment method, making it easier for people to make transactions in various places. Even though QRIS is widely used and makes the payment process easier, it is important to pay attention to the low level of QRIS in protecting the security of personal information and so that people continue to choose to use QRIS, several steps can be taken. QRIS must continue to improve and update its security system to protect user data. Additionally, it is important to educate the public about how QRIS protects their personal information and provide guidance on safe ways to use QRIS. With this approach, people will be more confident that QRIS is a safe choice, so they will be more inclined to use it in daily transactions.

2. Social factors

Based on responses from respondents, results were obtained regarding Consumer Decisions to Use QRIS as a Digital Payment Tool, especially in the social factor dimension as follows:

Table 4.3 Dimensions of Social Factors

No	Statement	Answer Score										Total Score	Avera ge
		STS		K.S		T.S		S		SS			
		1		2		3		4		5			
		N	%	N	%	N	%	N	%	N	%		
1	My friend's experience encouraged me to try using QRIS to make transactions.	0	0%	10	10%	2	2%	54	54%	26	26%	434	4.34
2	I use QRIS because of the experience of family members.	0	0%	5	5%	10	10%	44	44%	20	20%	346	3.46
3	I use QRIS because people are used to using it	0	0%	3	3%	8	8%	45	45%	42	42%	414	4.14
Total													3.60

Source: Questionnaire Data Processing Results (2024)

In table 4.3 of the three statement indicators in the social factor dimension, it can be seen that the experience of friends who agree with QRIS encourages people to try using QRIS in making transactions. Apart from that, people use QRIS because many people are used to using it, so people feel more confident and comfortable in making transactions using QRIS. Even though there are experiences of disapproval from family members. To increase people's decision to use QRIS, it must be more, by emphasizing the success and satisfaction of other users, they will be more confident and interested in using QRIS

3. Economic factors

Based on responses from respondents, results were obtained regarding Consumer Decisions to Use QRIS as a Digital Payment Tool, especially in terms of dimensionseconomic factors as follows:

Table 4.4 Dimensions of Economic Factors

No	Statement	Answer Score										Total Score	Average
		STS		K.S		T.S		S		SS			
		1		2		3		4		5			
		N	%	N	%	N	%	N	%	N	%		
1	QRIS internet connection costs are affordable	0	0%	5	5%	2	2%	55	55%	36	36%	416	4.16
2	I feel QRIS provides better economic value compared to other payment methods	0	0%	9	9%	3	3%	49	49%	37	37%	432	4.32
Total													4.24

Source: Questionnaire Data Processing Results (2024)

In table 4.4 of the two statement indicators in the economic factor dimension, it can be seen that the internet connection costs for using QRIS are affordable, making it accessible for many people. Additionally, people feel QRIS provides better economic value compared to other payment methods due to lower transaction costs and higher time efficiency.

4. Consumer Preferences

Based on responses from respondents, results were obtained regarding Consumer Decisions to Use QRIS as a Digital Payment Tool, especially in terms of dimensions consumer preferences as follows:

Table 4.5 Dimensions of Consumer Preferences

No	Statement	Answer Score										Total Score	Avera ge
		STS		K.S		T.S		S		SS			
		1	2	3	4	5							
		N	%	N	%	N	%	N	%	N	%		

1	QRIS is easy to access from anywhere and comfortable to use	0	0%	8	8%	13	13%	53	53%	24	24%	389	3.89
2	QRIS speeds up the payment process	0	0%	5	5%	1	1%	51	51%	41	41%	420	4.20
3	I feel that transactions with QRIS are safe	0	0%	5	5%	3	3%	47	47%	41	41%	412	4.12
4	QRIS is easy to understand	0	0%	0	0%	1	1%	55	55%	34	34%	393	3.93
Total													4.03

Source: Questionnaire Data Processing Results (2024)

Based on table 4.5, it can be concluded that the average Consumer Preference dimension reached 4.03, which means that respondents agreed to use QRIS. The highest component in the Consumer Preference dimension is choosing QRIS as a digital payment tool. I agree to use it. This means that it shows that the influencing factors have succeeded in making users interested in choosing QRIS as a digital payment tool.

A. Test data quality

1. Validity test

In this research, the validity test was measured using the SPSS 29 program. Before distributing the questionnaire form to the research sample, validity and reliability testing was first carried out by distributing the questionnaire to 30 people. Respondents are asked to answer the statements contained in the statement form provided. In this research, the validity test was measured using the SPSS 29 program. The following is a table of validity test results for the Consumer Decision variable.

Table 4.6 Consumer Decision Validity Test

Statement Items	R Count	R Table	Information
X1	0.442	0.361	Valid
X2	0.442	0.361	Valid

X3	0.442	0.361	Valid
X4	0.442	0.361	Valid
X5	0.442	0.361	Valid
X6	0.442	0.361	Valid
X7	0.442	0.361	Valid
X8	0.584	0.361	Valid
X9	0.442	0.361	Valid
X10	0.584	0.361	Valid
X11	0.788	0.361	Valid
X12	0.822	0.361	Valid
X13	0.955	0.361	Valid
X14	0.933	0.361	Valid
X15	0.980	0.361	Valid

Based on table 4.6, it can be concluded that all statement items in the Consumer Decision variable contained in the questionnaire are declared valid, which means that statements one to fifteen can be used as a further analysis tool, this is because all the validity coefficient values (r) exceed r table. of 0.361 so it is suitable for use or valid.

2. Reliability Test

In this research, the reliability test was carried out using the Cronbach's Alpha test.

Table 4.6 Reliability Level Based on Alpha

Alpha	Reliability Level
0.00 – 0.19	Very Less Reliable
<0.20 – 0.39	Less Reliable
<0.40 – 0.59	Quite Reliable
<0.60 – 0.80	Reliable
<0.81 – 1.00	Very Reliable

The following are the results of the reliability test which have been calculated using the SPSS 29 program:

Table 4.7 Reliability Test

Variable	Croanbach's Alpha	N Of Items	Information
Consumer Decisions	0.934	15	Very Reliable

Based on table 4.7 of the reliability test using SPSS 29, it can be seen that the consumer decision variable has a Croanbach alpha above 0.81, so it can be concluded that the Consumer Decision variable is declared very reliable, which means the questionnaire can be used as a stable measuring tool because it gets relatively constant results.

5. Discussion

Based on the results of research regarding Consumer Decisions to Use QRIS as a Digital Payment Tool which has been discussed and through calculations of validity tests and reliability tests carried out, the following conclusions are drawn:

1. The technological factor dimension can be seen that the highest value for the statement "QRIS speeds up the payment process" has an average value of 4.43, because it only requires one scan to complete the transaction. The social factor with the highest score in the statement "people use QRIS because many people are used to using it" has an average value of 4.14, so people feel more confident and comfortable in making transactions using QRIS. The highest value economic factor in the statement "people feel QRIS provides better economic value compared to other payment methods" has a value with an average of 4.32 due to lower transaction costs and higher time efficiency.
2. Based on the results of validity and reliability test calculations, the results obtained in the Consumer Decision variable contained in the questionnaire it is declared valid, which means that statements one to fifteen can be used as a further analysis tool and are declared very reliable, which means the questionnaire can be used as a stable measuring tool because it gets relatively constant results.

A. Suggestion

Based on the conclusions obtained in this research, there are several suggestions put forward that can be taken into consideration, namely as follows:

1. For the technological factor dimension, the lowest value is in the technological factor indicator, namely "I believe QRIS protects the security of personal information" which means that it is necessary to pay attention to the low level of QRIS in protecting the security of personal information and so that people continue to choose to use QRIS, QRIS must continue to improve and update the security system to protect user data. The social factor is found in the indicator "I use QRIS because of the experience of family members," which means that to improve consumer decisions in using QRIS, they must have more experience than other people, by emphasizing the success and satisfaction of other users.
2. The hope is that this research can become a basis for further research and provide guidance for future researchers. It is hoped that the development of additional variables not included in this research can be carried out, by exploring other factors that have the potential to influence consumer decisions.

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