

Analysis of Factors Influencing FinTech Adoption by Students of Information Systems

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Abstract

Background: Adoption of acceptance of new technology in the use of digital payments will affect the user's decision to accept and use technology based on FinTech applications. Through TAM, system and information quality and perceived risk measures, we examine the effect of consumers' intention to use QRIS as a digital payment method. **Objective:** This research was conducted to determine the factors that can influence interest in using QRIS in Information Systems students in Malang City. **Method:** Using a descriptive quantitative approach and using a questionnaire as a data collection tool. We use multiple regression tests to find out the factors that can influence the adoption of FinTech technology. **Result:** The results showed that the influence of each variable, namely: perceived usefulness, perceived ease of use and system and information quality were not significant variables on the interest in using QRIS echnology for information system students, in contrast to the perceived risk variable which was very dominant in supporting interest in acceptance of this technology. In addition, TAM theory is a significant predictor of technology acceptance. Another result is that all the constructs of the research variables together have a strong relationship in supporting the acceptance of QRIS technology. **Conclusion:** This research highlights the importance of technology adoption on digital payment platforms (FinTech) for users such as IS students with a high level of technological literacy and we believe individuals who are very familiar with technology tend to accept this technology well. We found that only perceived risk had a significant effect on the intention to adopt QRIS. We also present policy implications and further research directions in this article.

Keyword: FinTech, TAM, System and Information Quality, Perceived Risk, IS Student, Interest.

I. Introduction

Entering the digital era, the use of financial technology (FinTech) to communicate, shop and transact has become a new trend for society [1, 2]. Through the use of information technology as a medium for online payments by the public, FinTech is expected to create more equitable monetary inclusion at all levels of business [3], because this can help financial transactions become faster, easier, more convenient and efficient [4, 5]. Furthermore, Teoh [6] explained the role of FinTech in becoming a model for new shopping and transaction services by combining information technology and financial innovation. The type of FinTech that is currently developing rapidly in Indonesia is digital payment or commonly called e-payment [7]. In the banking sector, e-payment is used to carry out financial transactions through mobile banking and internet banking [8, 9] while in the non-banking sector it is carried out in accordance with the Decree of the Minister of Finance Number 38 of 1972 [10] and is commonly found in insurance applications, cooperatives savings and loans and financial technology such as OVO, Gopay, DANA, LinkAja, ShopeePay [11].

Several previous research has revealed the importance of adoption of new technology acceptance in the use of financial technology [12, 13]. Because this will affect the user's decision to accept and use FinTech-based applications through ease of use [13, 14], perceived benefits [12, 14], system quality [14, 15], convenience [5, 16] security [17], and encourage innovation [18]. QRIS or Quick Response Code Indonesian Standard as one of the applications of the e-payment service model is a unification of various Quick Response (QR) from many Payment System Service Providers (PJSP) issued by Bank Indonesia using the QR Code. Through testing the acceptance of adoption of new technology in e-payment services such as QRIS, this research is expected to provide significant

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benefits for various parties, including customers, FinTech technology service providers and the economy as a whole [14, 16 19]. Furthermore, the size of the impact of acceptance of FinTech technology is expected to bring about the transformation of consumer behavior in terms of payments and financial management [20, 21]. Consumers may become more inclined to use e-payments as their primary payment method, and this may result in a decrease in the use of physical cash and credit cards [22]. In addition, consumers can develop new habits in terms of using payment applications and e-wallet platforms to monitor and manage their transactions [23].

This study aims to determine the effect of interest in using QRIS by information system students as a digital payment method, through the theory of Technology Acceptance Models (TAM) introduced by Davis [24] (such as: perceived usefulness, perceived ease of use), system and information theory introduced by DeLone& McLean [25] (eg: system and information quality), and risk theory introduced by Pavlou [26] (eg: perceived risk).

II. Literature Review

2.1. Financial Technology (FinTech)

Financial Technology (FinTech) is a blend of financial features with technological features which can be interpreted as innovation in the field of financial sector technology [27]. The International Organization of Securities Commissions (IOSCO) defines fintech as an emerging innovative business model that has the potential to transform and develop financial services [6]. Fintech has many types and types, including Peer to Peer Lending, Crowdfunding, Market e-aggregator, Investment and Digital Payment. Payment is a part of financial technology which is a direct concern of Bank Indonesia.

2.2. Payment

Payment is a transfer in part or in whole of an amount of funds from the payer to the recipient that occurs directly or through an intermediary [28]. Along with the development of information technology, the payment model has also increased. Currently payments can be made online until finally the term e-payment or payment electronically (online) appears. The use of e-payments can be made anywhere and anytime with the help of smartphone devices such as e-wallets, m-banking and internet banking [8, 9, 11]. Turban [29] divides several types of e-payment into categories, namely payment cards, e-wallets, smart cards, e-cash and e-checks. Furthermore, Turban explained that e-payment can be used to make transactions at e-commerce and merchants. The types of e-payment above can be used to make transactions at e-commerce and merchants. However, in its implementation, the application of e-payments has problems, because not all e-commerce and merchants provide adequate types of e-payments, so that Bank Indonesia has issued a payment method that combines the various types of e-payments above into a single payment gateway called as Quick Responses Indonesian Standard (QRIS).

2.3. Quick Response Indonesian Standard (QRIS)

Quick Response Indonesian Standard (QRIS) is a standardized digital payment system (FinTech) under the auspices of Bank Indonesia and supervised by the Financial Services Authority. All PJSP institutions are currently required to use QRIS on a QR Code-based digital payment platform, so that all people can use the same QR Code to make payment transactions at all existing merchants. Users who use QRIS must follow a good and correct mechanism for using QRIS, so that transactions can run well. According to Bank Indonesia Board of Governors Regulation Number 21/18/2019 [30], there are several mechanisms for using QRIS, namely choosing, registration, validity, scanning QR and confirming [31]. Payments using QRIS can be received from merchants that implement payment systems including Static Merchant Presented Mode (MPM), Dynamic Merchant Presented Mode (DMPM), and Customer Presented Mode (CPM) [31].

2.4. Technology Acceptance Models (TAM)

The TAM model is used to determine how far the acceptance level of an information system is used by users [24]. TAM is a theory derived from behavioral theory to determine the adoption of technology by each individual [16, 18, 24]. The behavioral theory used by Davis [24] in analyzing technology acceptance is to use perception theory (see fig. 1). The perception built by Davis [18,24] is the perceived usefulness and perceived ease of use. These two perceptions are then translated back into several indicators to facilitate TAM analysis. Each perception has its derivative analysis, which is as follows:

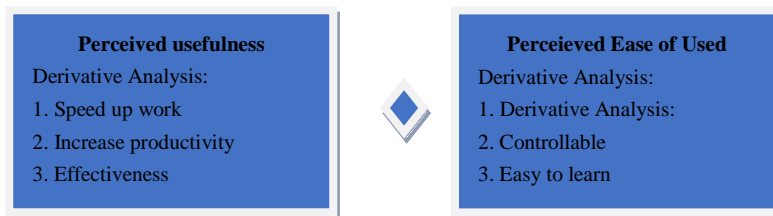


Fig 1: Perceived Usefulness and Perceived Ease of Use Analysis [24].

2.5. System and Information Quality

System and information quality was introduced by DeLone& McLean [25] as a theory that supports the acceptance of a technology by users. Furthermore, DeLone& McLean explain individual acceptance of technology as a whole related to systems and information quality. System and information quality is defined as the characteristics that exist in the information system itself [25, 32]. In its development, system quality is refined as the functionality and performance of a system [33]. The measurement of system success and information quality is based on five main indicators, including system reliability, system flexibility, system integrity, system accessibility and response time. Meanwhile, information quality is based on completeness, relevance, accurate, timeless and information itself [25].

2.6. Perceived Risk

Balouchi [34] defines risk as an outcome that is undesirable and favored by something that is expected. Risk can be associated with one or several possibilities that can threaten the sustainability of an information system's goals and objectives [35]. Pavlou [26], defines perceived risk as the uncertainty that can occur as a result of unwanted consumer actions. This perceived risk occurs because of the user's own activity when purchasing a product or service which results in self-harm [36], especially in e-commerce services [37]. Featherman&Pavlou [38] then further developed the perceived risk that could be experienced by information technology users and divided its characteristics into three, namely: the seriousness of the results, expectations and obstacles to usage behavior..

III. Hypothesis and Conceptual Research Framework

3.1. Perceived Usefulness (PU)

PU is a measure of a person's belief that technology or products have significant benefits and can increase efficiency, performance, or satisfaction in achieving certain goals [16, 24]. This is a user's view of the potential and relevance of a product or technology to needs and wants, or solving the problems they face [39, 40]. In terms of the use of FinTech technology, perceived usefulness is subjective for each individual [41, 42], but is a significant predictor of acceptance of information technology [43, 44]. If users believe that the technology will help them achieve their goals or solve the problems they face, they are more likely to adopt it and use it actively [45] and vice versa if this technology does not help individuals in their work they will abandon it. Therefore, we propose the following hypothesis:

H1: Perceived usefulness has a significant effect on interest in using QRIS.

3.2. Perceived Ease of Used (PEoU)

PEoU refers to a person's or group's perception or assessment of how easy or difficult a product or technology can be used [18, 24]. Perceived Ease of Use is an important factor influencing the user's decision to adopt or use a technology. If a person or group believes that a technology is easy to use, then they tend to be more likely to accept and use it [39, 45]. This also includes various applications and platforms that focus on financial services that can make it easy for consumers to be able to use access to financial services [46], so user experience with FinTech technology can increase user adoption and satisfaction of these services [47, 48]. Therefore, we propose the following hypothesis:

H2: Perceived Ease of Use has a significant effect on interest in using QRIS

3.3. System and Information Quality (SIQ)

The quality of systems and information is often used as an important parameter in assessing the success and performance of information systems as a whole [25]. These measures play a role in influencing user experience [49, 50], operational efficiency [51, 52], and the positive impact that information systems have on organizations or their end users [53, 54]. When the system has high quality, including system performance and accurate information, users will be more inclined to accept and use the technology [55, 56]. System and information quality measures in the use of FinTech services can help and ensure that this financial technology can provide real added value to its users [57, 58]. Therefore, we propose the following hypothesis:

H3: System and Information Quality has a significant effect on interest in using QRIS

3.4. Perceived Risk (PR)

Perceived risk is an overview of consumer psychology which refers to an individual's perception or assessment of the risks that may arise when making decisions or making purchases and using certain products or services [59, 60]. Perceived Risk plays an important role in consumer decision making. The level of risk perceived by consumers can influence purchase decisions, levels of involvement, and decisions to adopt new technologies or services [26, 61]. In the context of FinTech, Perceived Risk is important because financial technology is directly related to financial transactions and sensitive data [61, 62]. In addition, Perceived Risk is needed in financial technology because it relates to user convenience, trust, and acceptance of the technology. Therefore, we propose the following hypothesis:

H4: Perceived risk has a significant effect on interest in using QRIS

3.5. Technology Acceptance Models (TAM) and FINTECH

Technology Acceptance Model (TAM) is a theoretical framework used to understand and analyze acceptance of technology by users [24, 45] and this model is often used for adoption of acceptance of financial technology devices [43, 44]. In the context of Fintech, variables in TAM such as (Perceived Usefulness and "Perceived Ease of Use) are important measurements because FinTech users will be more likely to adopt these services if they believe that Fintech is useful in helping them manage their finances and is easy to use [45, 48] The use of FinTech allows users to experience changes in their financial behavior [57, 62], therefore the TAM measure is expected to help understand how users experience these changes and what factors influence it [64]. Therefore, we propose the following hypothesis:

H5: PU and PEOU together have a significant effect on the intention to use QRIS

3.6. PU & PEOU, System and Information Quality, Perceived risk and FINTECH

Several studies have examined the adoption of financial technology by influencing users' perceptions of the benefits and ease of use of these technologies [47, 48, 62]. In addition, quality systems and information will increase users' positive perceptions of financial technology [53, 54], which in turn will increase acceptance and adoption of these technologies [57, 65, 66]. Furthermore, perceived risk can be an obstacle to the adoption of financial technology [61]. The higher the perceived risk, the lower the probability of adopting financial technology [38]. Therefore, this study proposes the following hypothesis:

H6: PU, PEOU, Information Quality and Perceived risk together have a significant effect on the intention to use QRIS.

IV. Methods

4.1. Population and Sample

This research was conducted on Information System (SI) students at several universities in Malang City and are actively registered on the public university database (PDDIKTI) website. The research was conducted for 3 months from March to May 2023. The total population of SI students who have been registered and active based on the PDDIKTI website since 2022 is 8860 students. There are several reasons why we chose to use a sample of IS students, namely: First, IS students are part of the digital generation and have good technological literacy [67], including FinTech [68]. They tend to be familiar with technology and have a higher level of acceptance of technological innovation [68, 69] including in financial matters [70]. Second, University students tend to be more open to the use of new technologies [68], including FinTech applications and platforms [69, 71]. They are more likely to try and adopt technological innovations earlier than other age groups [71,72]. Third, University students generally have more tolerance for risk due to their position in the learning and career development stages [73, 74]. This can impact their behavior in adopting financial technology which may involve a certain level of risk [75, 76].

To get an appropriate number of samples, we use the Slovin formula ($n = N/1+Ne2$) with a 90% confidence level, through the results of these calculations, the ideal number of samples is 98 samples and rounded up to 100 samples. We use a random sampling technique to randomly select a sample from a population with the aim of making inferences about that population based on the data from the sample drawn.

4.2. Research Instruments

To ensure that the data obtained is of high quality and can support accurate conclusions, we conduct a literature study in accordance with the theory and supporting literature. Where, we obtained research data by distributing questionnaires online and offline, for measurements on research construction variables, measured by question indicators (see table 2) which were obtained and sourced from several theories of technology adoption such as TAM theory [24], system and information quality [25], and risk theory [26]. Each question item is measured using a five-point Likert scale with a value of 1 associated with "Disagree" and point 5 associated with "Strongly Agree".

4.3. Data Analysis Techniques

To assist the analysis in this study (see fig. 2), we use the help of the IBM SPSS version 25 application software by carrying out several stages of analysis, namely: First, conducting reliability and validity tests. Second, carry out the classic assumption test which consists of a multicollinearity test, heteroscedasticity test, and normality test. Third, do a hypothesis test which consists of a partial test (t test) and f test (simultaneous). We did the t test to test whether there is a direct effect of the independent variables on the dependent variable. As for the simultaneous f test, we conducted it to determine the joint effect of the independent variables on the dependent variable.

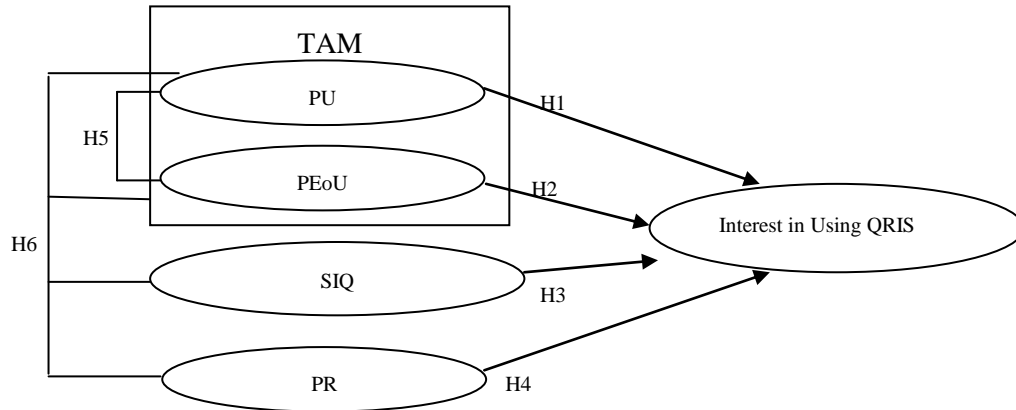


Fig 2. Research Concept Framework

V. Results

5.1.Characteristics of Respondents

The characteristics of the respondents in this study were divided into several criteria, as shown in table 1 which is the distribution of the demographics of the respondents, namely: origin of college, semester level, gender, number of FinTechs (for example: QRIS) used and length of use of QRIS.

Table 1. Respondent Demographic Profiles

Characteristics	Items	Count	Characteristics	Items	Count
University	Gajayana University	23	Gender	Man	36
	Brawijaya University	22		Woman	64
	Malang State University	24	Number of FinTechs (ex. QRIS)	1 Type	9
	Widyagama University	5		2 Type	32
	Muhammadiyah University	4		3 Type	36
	Merdeka University	11	Length of use of QRIS	> 3 Type	23
	Machung University	3		< 3 month	8
	Bina Nusantara University	2		3 to 6 month	24
	Institute Asia	2		6 to 12 month	28
	Level	POLINEMA - Malang	4	> 1 years	40
Level 2		5			
Level 4		8			
Level 6		36			
Level 8		47			

The demographic appearance of the research respondents as shown in table 2 shows the origin of the respondents from several universities in the city of Malang and the largest number of respondents came from Malang State University and Gajayana University. The majority of respondents were female and the length of study was eight semesters, indicating that the majority of respondents were female students who were currently in their

fourth year of study and were entering their final college period. Furthermore, respondents indicated they had more than 2 and 3 numbers of FinTechs with more than one year of experience.

5.2. Reliability and Validity Test

The initial stage in testing this research is to test the reliability and validity test. The reliability test is carried out to measure the reliability of the indicators in the questionnaire. The reliability test requirements in this study used the Cronbach Alpha test method with a value of > 0.6 [77]. Furthermore, we conducted a validity test to measure the correlation value that occurs in each question with the provisions of Product Moment Correlation (r-count) [77]. The critical correlation coefficient is 5% and the r-table value is 0.1946

Table 2. Description of Research Construction, Test Validity and Reliability

Construction Variables	Indicator	Code	r-count	Cronbach alpha
X1- Perceived Usefulness [24]	I think transactions using QRIS are more efficient	PU1	0.735	0.897
	QRIS gave me new knowledge about payment methods	PU2	0.747	
	QRIS can increase my productivity in transactions	PU3	0.844	
	QRIS makes it easy for me	PU4	0.896	
	QRIS makes my work more effective	PU5	0.868	
X2 - Perceived Ease of Used [24]	I think QRIS is easy for ordinary people to learn	PEOU1	0.693	0.789
	I think QRIS is easy to use	PEOU2	0.752	
	I think QRIS can be easily understood	PEOU3	0.785	
	I think QRIS can be used easily anywhere and anytime	PEOU4	0.735	
	I think QRIS can be used easily anywhere and anytime	PEOU5	0.733	
X3 - System and Information Quality [25]	QRIS can make me feel good at using technology	SIQ1	0.519	0.753
	Connecting QRIS with several M-Banking platforms makes it easy to monitor financial activities	SIQ2	0.644	
	In my opinion, the QRIS interface is easy to understand	SIQ3	0.562	
	In my opinion, transactions using QRIS are faster than other methods	SIQ4	0.581	
X4 - Perceived Risk [38]	I believe transactions using QRIS are safer than using other methods	PR1	0.771	0.729
	I believe transactions using QRIS can reduce the potential for fraud between sellers and buyers	PR2	0.841	
	I believe in the quality of the QRIS security system regarding my personal data and information	PR3	0.808	
Interest in Using QRIS [24]	I feel interested in using QRIS as a digital payment method	M1	0.840	0.822
	I would recommend QRIS as a digital payment method to others	M2	0.864	
	I will use QRIS in the future	M3	0.876	

The results of the validity and reliability tests on the construction of the research variables as shown in table 2 illustrate that all question indicator items are declared valid because the critical coefficient value (r-count) $>$ r-table. On the other hand, the results of the reliability test on the research construct variable showed a Cronbach Alpha value > 0.6 and the variable was declared reliable. Furthermore, all indicator items from the research construction variables will be continued in data analysis.

5.3. Classical Assumption Test

Multicollinearity Test

Multicollinearity test was conducted to determine whether or not there is a correlation between independent variables in the regression model. To find out whether there is a correlation between the independent variables, it can be seen from the tolerance value and the VIF value on the test results. Conditions that can indicate the absence of multicollinearity problems are indicated by tolerance values > 0.10 and VIF values < 10 [78].

Table 3. Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Total_PU	.206	4.844
Total_PEOU	.233	4.300
Total_SIQ	.497	2.011
Total_PR	.292	3.426

a. Dependent Variabel: Total_M

The results shown in table 3 regarding the results of the multicollinearity test in this study for all variables of the research construction have tolerance values and VIF values according to the provisions, so that the assumption of a correlation between independent variables in the regression model is not found.

Heteroscedasticity Test

Heteroscedasticity testing was carried out to find out whether the regression model has an unequal variance from one residual observation to another. To find out whether there is heteroscedasticity, it can be seen in the pattern of data distribution points on the Scatterplot graph [79].

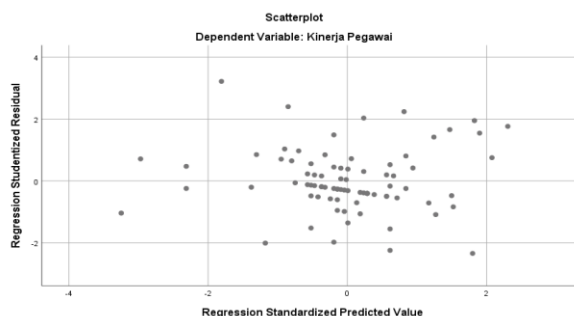


Fig. 2. Heteroscedasticity Test Results and Scatterplot

The results of the heteroscedasticity test in this study took into account the scatterplot image (fig. 2) where the data distribution points spread above and below the number 0 and form a certain pattern [79]. These results indicate that the regression model has an unequal variance of the residuals of each research variabl.

Normality Test

This study uses the Kolomogorov-Smirnov approach to carry out the normality test. The normality test was carried out to find out whether the residual value regression model was normally distributed or not. The data can be said to be normally distributed if the significance value is > 0.05 [78].

Table 4. Kolmogorov-Smirnov One-Sample Test Results

		Unstandardized Residual
N		100
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.88796469
Most Extreme Differences	Absolute	.062
	Positive	.052
	Negative	-.062
Test Statistic		.062
Asymp. Sig. (2-tailed)		.200 ^{c,d}

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

The results of the Kolmogorov-Smirnov test for one test as shown in table 4 found a residual value of 0.200 > 0.05 and these results indicate that it is normally distributed.

Partial t-test

We conducted multiple regression tests to find out the relationship between two or more variables and to show the direction of the relationship between the independent variables and the dependent variable.

Table 5. Multiple Linear Regression Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.446	.698		.638	.525
	TOTAL_PU	.081	.067	.145	1.209	.230
	TOTAL_PEOU	.097	.074	.148	1.311	.193
	TOTAL_SIQ	.079	.055	.112	1.448	.151
	TOTAL_PR	.559	.110	.514	5.087	.000

a. Dependent Variable: TOTAL_M

The results shown in table 5 illustrate that all the dependent variables have significant values for the independent variables, where there are 3 construction variables whose results reject the hypothesis and one accepts the hypothesis, namely: perceived usefulness is found to be positive but not significant ($\beta=0.081$, $t = 1.209$, $\rho > 0.230$) and reject H1. Furthermore, perceived ease of use was found to have a positive and insignificant relationship ($\beta=0.097$, $t = 1.311$, $\rho > 0.193$) and rejected H2. Then system and information quality were also found to have a positive but not significant relationship ($\beta=0.079$, $t = 1.448$, $\rho < 0.151$) and rejected H3. And finally, perceived risk is found to have a positive and significant effect ($\beta=0.559$, $t=5.087$, $\rho < 0.000$) which supports H4.

R-square Determination Test

The determination test is used to measure the ability of the independent variables in the regression model to explain variations in the dependent variable.

Table 6. R-Square Determination Test Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.846 ^a	.717	.705	.906

a. Predictors: (Constant), TOTAL_PR, TOTAL_SIQ, TOTAL_PEOU, TOTAL_PU

Based on the results shown in table 6 above, the R Square value is 0.717 and this illustrates that the influence of the independent variables, namely perceived usefulness, perceived ease of use, system and information quality and perceived risk, has on the interest of IS students in using QRIS by 71.7%.

Simultaneous Test F

The F test was conducted to determine whether all of the independent variables included in the research model had a simultaneous or joint effect on the dependent variable. This decision is made based on the significance value, and then it can be compared with the predetermined significance level, which is 0.05.

1. Simultaneous Test A

Simultaneous F test A was carried out to determine the simultaneous effect of the TAM variable, namely: perceived usefulness and perceived ease of use on interest in QRIS technology acceptance. The results of the simultaneous test B are as follows:

Table 7. Simultaneous Test Results A

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	173.657	2	86.828	82.789	.000 ^b
	Residual	101.733	97	1.049		
	Total	275.390	99			

a. Dependent Variable: TOTAL_M
b. Predictors: (Constant), TOTAL_PEOU, TOTAL_PU

From the results of the ANOVA test as shown in table 7 above, a significance value of 0.000 is obtained and these results indicate that the variables perceived usefulness and perceived ease of use together can significantly encourage interest in QRIS acceptance by IS students and these results support the fourth hypothesis (H4).

2. Simultaneous Test B

Simultaneous F test B, i.e. Simultaneous F test conducted on all independent variables perceived usefulness, perceived ease of use, system and information quality, and perceived risk of the dependent variable interest in using QRIS together.

Table8. Simultaneous Test Results B

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	197.330	4	49.333	60.039	.000 ^b
	Residual	78.060	95	.822		
	Total	275.390	99			

a. Dependent Variable: TOTAL_M
b. Predictors: (Constant), TOTAL_PR, TOTAL_SIQ, TOTAL_PEOU, TOTAL_PU

From the results of the ANOVA test to determine the simultaneous value (see table 8) in the research hypothesis, a significance value of 0.000 is obtained. These results indicate that perceived usefulness, perceived ease of use, system and information quality, and perceived risk together have a significant effect on interest in using QRIS and these results support the fifth hypothesis (H5).

Table 9. Summary of Hypothesis Testing Results

Hypothesis	Information
H ₁ Perceived usefulness has a significant effect on interest in using QRIS.	Not Supported
H ₂ Perceived Ease of Use has a significant effect on interest in using QRIS	Not Supported
H ₃ System and Information Quality has a significant effect on interest in using QRIS	Not Supported
H ₄ Perceived risk has a significant effect on interest in using QRIS	Supported
H ₅ PU and PEOU together have a significant effect on the intention to use QRIS	Supported
H ₆ PU, PEOU, Information Quality and Perceived risk together have a significant effect on the intention to use QRIS	Supported

VI. Discussion

6.1. Hypothesis Testing Results

The results of this study provide some interesting conclusions (see table 9), for example the finding of the effect of perceived usefulness is positive but not significant ($\beta=0.081$, $t = 1.209$, $\rho > 0.230$) on interest in using the QRIS application and rejects hypothesis one. The attitude of someone's belief that technology or products have significant benefits and can increase efficiency, performance, or satisfaction in achieving certain goals [16, 39, 40], was not found in this study. The results shown in this study are that the use of QRIS can be well received by IS students, but is not able to directly improve their performance when using this FinTech application. This may be caused by several things, for example: First, information regarding payment methods using the Scan barcode model (like QRIS) which has been determined by Bank Indonesia for financial technology transactions to a number of merchants and shops can be well received by SI students in Kota Malang but its application is still limited, when the number of potential users is limited, the overall impact is not significant [80]. Second, the information on the QRIS payment model does not reach a wide number of users, both from the side of IS students and merchants, if not many individuals know and are willing to use this application, then the impact may not reach its maximum potential [81, 82].

Furthermore, it was found that the effect of perceived ease of use had a positive but not significant relationship ($\beta = 0.097$, $t = 1.311$, $\rho > 0.193$) on the interest in using the QRIS application and rejected hypothesis two. When someone's experience of the ease of using technology will lead to their desire to want to accept and use the application [39, 45] but in this study it was found that different things were found, where IS students really liked using the QRIS application because it was easy to use but did not encourage their interest to continue using this technology. There are several things that might cause this, namely: First: many students may have transacted with QRIS because it is very easy to use, but this experience is not always enough to have a significant impact and interest them in continuing to use this application [83]. Second, even though the QRIS application is easy to use, not all students want to use this application for various reasons, for example: technical problems (internet network, account balance, data security) and access to the application network..

System and information quality was found to have a positive but not significant relationship ($\beta=0.079$, $t = 1.448$, $\rho < 0.151$) on interest in using the QRIS application and rejected hypothesis three. When the technology system has high quality, including good system performance and accurate information, users will be more likely to accept and use the technology [55,56], but this was not found in this study. The QRIS application has been designed and is of high quality and has been used by some SI students, but has not shown a significant impact on their interest in using it. This is a big anomaly if you look at the reality that should be described, where if we look at the technological literacy skills quite well owned by IS students, but they do not have a significant interest in adopting FinTech technologies such as QRIS. There are several possibilities that cause this fact to emerge, namely: First, the lack of use of the QRIS application in student economic activities every day. Even though the system is made very well if the user doesn't respond and doesn't use it much, the impact is limited [84]. Second, the lack of relevance of the system to several economic activities, for example buying and selling transactions at several shops in Malang City which are still conventional (using cash). Even though the existing system at QRIS can function properly and provide accurate information, its existence is irrelevant because users do not feel helped by this FinTech [85].

Perceived risk was found to have a positive and significant effect ($\beta=0.559$, $t=5.087$, $\rho < 0.000$) on interest in using the QRIS application and supports hypothesis four. The risk factor perceived by consumers is one of the important factors that will influence purchasing decisions, involvement, and adoption of new technologies or services [26], such as this FinTech [61, 62]. Consistent with some previous findings, which explain that in order to minimize risks and increase the chances of success in the adoption of new technologies, individuals will carry out

several careful evaluations [86, 87], plan carefully [86, 88], and involve related parties. in the adoption process of this technology [89, 90]. In the context of this research, IS students believe that QRIS is reliable for digital payments and the quality is reliable. The emergence of a positive and significant influence on IS students' trust as FinTech users is expected to reduce anxiety about data security and financial information.

Furthermore, it was found that the joint effect of the perceived usefulness and perceived ease of use variables significantly affected the interest in using the QRIS variable and supported the fifth hypothesis. Several previous findings explain the support of technology adoption through TAM theory to FINTECH users, where users believe that Fintech is useful in helping them manage finances and is easy to use [45, 48]. This finding also confirms that students (especially IS students) as a user group have an important role in adopting FinTech [90]. The behavior and experiences shown by SI students through QRIS can shape public perceptions about financial applications and open up opportunities for increasing the adoption of financial technology as a whole.

Finally, it was found that the joint effect of the variables perceived usefulness, perceived ease of use, system and information quality, and perceived risk significantly affected the interest in using the QRIS variable and supported hypothesis six. When individuals feel the benefits, convenience, quality of new technology and the risks involved in this technology, they will try to accept it [91] and the findings in this explain the same effect. It is important for FinTech technology service providers to ensure that the technology they offer meets needs, provides real benefits, and has solutions to overcome existing risks or obstacles [92, 93, 94, 95].

6.2. Theoretical Contribution

There are several theoretical contributions that we can make to this study. First, measures of acceptance of new technologies in the FinTech sphere have been discussed previously, however, little attention has been paid to a limited sample with high levels of technological literacy and we believe individuals who are very familiar with technology tend to accept them with a high level of technological literacy. good this technology. We found that only perceived risk had a significant effect on the intention to adopt QRIS by IS students. Second, we did not find any partial and significant effect of PU, PEOU, system and information quality on the interest of IS students. However, it is important to note that the factors influencing technology adoption can vary depending on the context and type of technology being studied..

6.3. Practical Implications

There are several interesting implications obtained in this research and are of greater concern to Payment System Service Providers (PJSP) as operators, Bank Indonesia as regulators, merchants who use QRIS and buyers as consumers, namely: First, it is important for stakeholders in this application to conduct a thorough evaluation, plan carefully, and take appropriate countermeasures to reduce risks and increase the chances of success in adopting QRIS technology. Second, although interest measures are an important factor in the success of an application adoption, significant impact also requires a combination of other factors, for example: including strong features, good problem solving, adequate marketing support, and understanding of user needs and expectations of FinTech applications like QRIS.

6.4. Limitations and Research Directions

There are several limitations in this study, namely: First, the data used in this study focus on a limited sample, so the results in this study cannot be generalized to other environments. We suggest that the research approach can be carried out on a wider sample to support results in this study. Second, FinTech applications, especially e-paymet, have various payment models and this research may miss a more comprehensive understanding of the payment model with QRIS so that the experience of using it is different for each individual. We suggest further research based on the evidence available in this study, especially on potential factors in this study, for example the limited use of the QRIS application for payment activities and limited outreachs.

VII. Conclusions

Adoption of technology acceptance is a measure that is widely used to determine the extent of individual interest in using new technology, through the theory of TAM, system and information and perceived risk we found some interesting conclusions related to interest in using FinTech technology such as QRIS by information system students in Malang City. Perceived usefulness, perceived ease of use and system information quality are not able to encourage interest in technology adoption properly for students. There are several reasons for this, for example: uneven information, uneven use of QRIS by students, and QRIS is not used in many economic activities. On the other hand, perceived risk is a significant variable on interest in technology adoption, this is because respondents feel the need to increase awareness and caution over the risks that can occur when using QRIS. In addition, all the independent variables in this study together become a strong encouragement for the emergence of interest in using

QRIS for IS students. We believe that these findings can be important input for FinTech stakeholders in developing QRIS technology so that it can be well received by students.

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