



## Moderation Social Influence on Influence Effort Expectancy Against Adoption of Innovation

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### ABSTRACT

The rapid growth of the digital economy, fueled by the internet and smartphones, has encouraged people to shift from traditional payment methods to digital ones. In the digital era, fintech is developing rapidly. The Indonesian Standard Quick Response Code (QRIS) is a fintech platform that simplifies financial transactions in Indonesia. With its convenience, QRIS allows users to make payments with fast and practically only through application on smartphone. This study aims to analyze the influence of business expectations on innovation adoption, moderated by social influence. The population in this study was the MSMEs under the guidance of ABM Preneur. The sample size was determined using the Slovin formula. The sample size was 90 MSME owners. Data analysis in this study, for the purpose of hypothesis testing, used Smart PLS version 4.1.0.9. The results showed that H1 and H2 were accepted. Therefore, business expectations have a positive and significant influence on innovation adoption. Social influence moderates the influence of business expectations on innovation adoption. The limitation of this study is that it only analyzes the moderation of social influence on the influence of business expectations on the adoption of QRIS innovation among MSMEs under the guidance of ABM Preneur .

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## 1. INTRODUCTION

The rapid growth of the digital economy, supported by the internet and smartphones, has encouraged people to shift from traditional payment methods to digital ones. In the digital era, fintech is developing rapidly. Quick Response Code The Indonesian Standard (QRIS) is a popular fintech platform today. Quick Response Code The Indonesian Standard (QRIS) is a fintech platform that simplifies financial transactions in Indonesia. With its convenience, QRIS allows users to make payments with fast and practically only through application on smartphone . On In Indonesia, QRIS is expected to increase financial inclusion, especially among the younger generation who are familiar with digital technology [1] [2].

There are seven variables that influence the adoption of technological innovation. These seven variables are performance expectancy , effort expectancy , social influence , facilitating conditions , hedonic motivation , price value , and habit [3] [4].

Until moment This Still there is There is a research gap related to the influence of effort expectancy on the adoption of QRIS innovation. Effort expectancy has an effect in a way significant impact on the adoption of QRIS innovation[5]. Effort expectancy has a positive but insignificant effect on the adoption of QRIS innovation [6]

Based on study previously related influence e ffort expectancy to adoption of innovation , then hypothesis study is as following :

Problems in research This is :

1. Does effort expectancy have a significant influence on the adoption of innovation ?
2. Does social influence moderate the effect of effort expectancy on the adoption of innovation ?

The objectives of this research are:

1. To determine the significant influence of effort expectancy on the adoption of innovation.
2. To determine the influence of social influence in moderating the influence of effort expectancy on the adoption of innovation .

Unified Theory of Acceptance and Use of Technology (UTAUT) or normal called with Integrated Theory Acceptance and Use Technology is framework work developed For understand intention users in use technology as well as behavior resulting use . This theory introduced by Venkatesh on year 2003. UTAUT is combination from a number of successful features from eight theory reception technology leading become one . The variables the is performance, expectancy, Effort Expectancy, social influence, facilitating conditions, attitude toward using technology and self-efficacy . After through a number of testing more further , found four variables main player role important as determinant directly . Fourth variables the is expectation performance (Performance Expectancy) , expectations business (Effort Expectancy) , influence social (Social Influence) and conditions that facilitate (Facilitating Conditions). The UTAUT 2 model attempts to For modify a number of the existing relationship There is previously in idea new and identify three construct new , namely favorites users to experience use technology (Hedonic Motivation) , consideration between benefits obtained with cost incurred (Price Value) and habits that are formed in use technology (Habit) [7] [8].

The existence of this research encourages researchers to conduct empirical studies on the factors that influence interest in using QRIS using the modified UTAUT framework model with Social Influence variables as a moderating variable. This aims to determine the interest in using QRIS as a payment method among students. STIE Malangkuçewara. Construct model UTAUT Which used in this study there are three:

Perception is a factor that influences a person's attitude or behavior, where changes within an individual can be reflected through perception. Perceived ease of use is a person's belief about the extent to which technology will make things easier for its users without requiring significant effort. Perception level convenience can influence user behavior, the higher the perception of ease of use of the system, the higher the level of utilization of information technology. system Which repetitive show that system the better known by its users. Ease of use is also related to a person's belief that using the system certain results will be as expected without having to make a big effort [9] [10].

The social environment is the environment in which daily activities take place. Different social environments will influence a person's behavior and discipline because a person's behavior reflects the environment in which they live. The social environment is where individuals interact with many people, both directly and indirectly, who can influence them [11] [12]

A person's decisions are not solely determined by themselves; their environment and friends also influence the decisions they make. When someone feels confused and unsure, knowledge, usually

someone the will look for information by asking direct to Friend or relatives even can look for information through media and promotions broadcast, so that the social environment influences the determination of interest in using QRIS as a payment method [13]

Adoption innovation is an individual process or group decide For receive and use an idea, practice , or object new ( innovation ), which involves mental stages of awareness , interest , evaluation , trying , until confirmation . This process influenced by characteristics innovation ( benefits , suitability ) and adopter characteristics ( attitudes , experience ), as well as its spread ( diffusion ) in society For change behavior , such as fintech [14]

QRIS, pronounced "kris," stands for Quick Response Code Indonesia Standard, created by Bank Indonesia and the Indonesian Payment Systems Association (ASPI). It produces a unified QR code for cashless payment systems. QRIS aims to unify various electronic payment systems in Indonesia into a standard QR code that is acceptable to all parties, both merchants and consumers. In short, QRIS is a QR code established by Bank Indonesia to facilitate various electronic payment systems in Indonesia. easy accessible by good society consumer And businessmen [15] [16]

The growth of internet usage via smartphones has made cashless payments more dominant, with e-wallet applications providing QR codes as the primary method for server-based payments. In August 2019, Bank Indonesia, as the payment system regulator, announced that it would be implementing a new payment system. in Indonesia introduce QRIS as payment instruments based on shared delivery channels. Before the implementation of QRIS, merchant must provide a number of application payment in the shop. Consumers who pays in installments non-cash, must ensure that The payment application must be available to the merchant [17].

With the implementation of QRIS, merchants do not need to prepare much application payment only provide One QR Code in shop And Consumers can scan QR codes using various payment applications on their smartphones. Compared to other digital payment methods, QR codes offer faster payment speeds. The digital payment process using QR codes begins with customers selecting the desired product, then scanning it using the QR code provided by the company. Afterward, users are asked to verify their account using a password. If successful, the transaction is processed immediately. in transfer from users to account Company [17].

## **2. METHOD**

The type of research used is causality research, which examines the cause-and-effect relationship between the variables being studied. A population is a generalized area consisting of objects with certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn. The population in this study was the MSMEs under the guidance of ABM Preneur. The sample is a subset of the population and its characteristics. The sample size was determined using the Slovin formula, as follows:

$$n = \frac{N}{N(e)^2+1}$$

Where:

n = Number of Samples

N = Population Size

e = Margin of Error (10%)

$$n = \frac{823}{823(0.1)^2+1}$$

Based on the Slovin formula, the number 89,165 was obtained, which the researcher rounded up to 90 samples.

The data in this study were analyzed using Smart PLS. SmartPLS has the following advantages:

1. Capable of Handling Small Samples

Unlike covariance-based SEM (such as AMOS or LISREL) which require large samples, SmartPLS maintains a high level of statistical power even with a limited sample size.

2. Does Not Require a Normal Distribution (Non-Parametric)

SmartPLS does not require data to be perfectly normally distributed. This is very advantageous because in real-world research, data often exhibits skewness or asymmetry.

3. Flexible Measurement Scales

SmartPLS can process data with various measurement scales simultaneously in a single model, including:

- a. Nominal
- b. Ordinal (such as the Likert Scale)
- c. Interval/Ratio

4. Capable of Handling Highly Complex Models

You can test research models with multiple variables, multiple indicators, and complex relationship paths (including mediating and moderating variables) without experiencing model identification issues that often occur with other software [18]

## 2.1 Hypothesis

### H 1 : Effort expectancy influential significant to adoption of innovation

#### Social Influence Moderation Influence Effort Expectancy to Adoption of Innovation

Previous research has shown that social influence has a positive and significant effect on the adoption of QRIS innovations. Therefore, it is suspected that social influence variables can moderate the effect of effort expectations on innovation adoption. Based on previous research related to social influence on innovation adoption, the research hypothesis is as follows: :

### H2: Social influence moderate influence Effort Expectancy to Adoption of Innovation

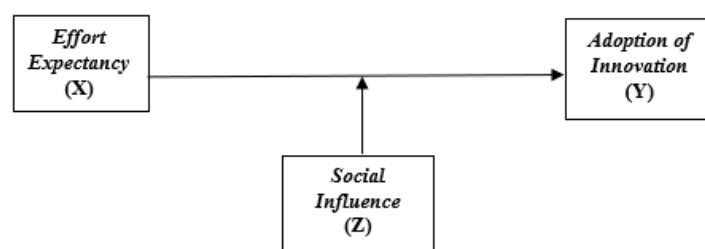


Figure 1. Framework Draft Study.

## 3. RESULTS AND DISCUSSION

There are 2 types step in PLS, namely First there is a measurement model (Outer Model) and the second There is a structural model (Inner Model) . Measurement model is A stages data testing to find out existence the relationship between each indicator with variables latent . There is three tests in the control model this , namely There is convergent validity, discriminant validity, and reliability. If the measurement model Already done evaluation , next done stages of the structural model. Structural model is A stages data testing to test hypothesis between variables independent to variables dependent . For view structural model can seen from the path connecting the measurement model and the structural model.

### 3.1 Convergent Validity

Convergent validity is used to test the validity of a construct, as seen from the outer model and factor loadings. An indicator is considered valid if its outer loading is greater than or equal to 0.5. A value between 0.5 and 0.6 is considered sufficient to meet convergent validity requirements .

In this study, there are three variables with a total of 9 indicators. 3 indicator Effort Expectancy , 3 Social Influence indicators , and 3 Adoption of Innovation indicators . Based on results testing convergent validity :

1. Variables Effort Expectancy measured with indicator X1.1 - X1.3, all indicators have values loading factors above 0.5. So the indicators in the Effort Expectancy variable can be said to be valid.
2. Social Influence Variable measured by indicators Z1 – Z3, all indicators have a factor loading value above 0.5. So the indicators in the Social Influence variable this can be said to be valid.
3. Variables Adoption of Innovation is measured with For indicators Y1–Y3, all indicators have factor loading values above 0.5. Therefore, the indicators in the Decision to Use variable can be said to be valid.

### 3.2 Discriminant Validity

The Average Variance Extracted (AVE) tool . Results are considered good and meet the requirements if the AVE value is greater than or equal to 0.50 ( $\geq 0.50$ ). Following is mark AVE Which served in the table below:

Table 2. Values Results Average Variance Extraced (AVE)

Variables	Average Variance Extracted (AVE)
Effort Expectancy	0.95
Social Influence	0.75
Adoption of Innovation	0.83

Source: Smart PLS Data Processing Results 4.1.0.9 (2025)

Based on the Table 2 it is known that all variables have a value of more than 0.50 ( $>0.50$ ), So it can be concluded that all variables in this study have met the minimum AVE value requirements.

### 3.3 Reliability Test

Reliability test is an instrument test used to determine consistency from variables research . Reliability test can done with method see results rho\_A with criteria more from 0.70 and can also done with see Cronbach's Alpha results with criteria must more from 0.60.

Table 3. Reliability Test Results ( Rho A )

Variacles	Rho A
Effort Expectancy	0.858
Social Influence	0.895
Adoption of Innovation	0.876

Source: Smart PLS Data Processing Results 4.1.0.9 (2025)

The reliability test in Table 3 show that variables effort expectancy, social influence , and adoption of innovation own mark rho\_A above 0.70 so that all variables studied reliable.

Table 4. Reliability Test Results (Cronbach's Alpha)

Variables	Cronbach's Alpha
Effort Expectancy	0.846
Social Influence	0.889
Adoption of Innovation	0.869

Source: Smart PLS Data Processing Results 4.1.0.9 (2025)

The reliability test in Table 4 show that results from Cronbach's Alpha on all three variables the stated fulfil conditions , because each variable be on the numbers more from 0.60.

### 3.3 Structural Model ( Inner Model )

Structural model test can observed from mark significance every the path that provides A information There is or No influence between the construct that has been hypothesized .

#### 3.3.1 R- Square

Resulting value from R square is used to measure level variation change from variables dependent to variables independent . R square results it is said Good If is at above 0.67, will but If results R square is said currently if the value is in the range of 0.33 – 0.67, and if results R square is said weak If its value is at 0.19 – 0.33. Can be seen results from analysis R square in the table under This .

Table 5. R-square Test Results

Variables	R-square
Adoption of Innovation	0.859

Source: Smart PLS Data Processing Results 4.1.0.9 (2025)

Based on table 5 results from mark R-square, can concluded that the adoption of QRIS innovation is explained variables effort expectancy, social influence , and adoption of innovation get results the remaining 85.6% namely 14.4% is explained by the variable other .

### 3.4 Hypothesis test

Based on data processed by SmartPLS 4.1.0.9 software with the research model that has been calculated and tested obtained from hypothesis test results that can be seen from indigo path coefficient. The results of path coefficient can seen in the table following This :

Table 6. Results Path Coefficient

	Original Sample	Sample Mean	Standard Deviation	T Statistics	F Values	Conclusion
Effort Expectancy -> Adoption of Innovation	0.55	0.389	0.185	2.56	0.01	Accepted
Social Influence x Effort Expectancy -> Adoption of Innovation	0.185	0.191	0.186	2.32	0.01	Accepted

Source : Smart PLS Data Processing Results 4.1.0.9 (2025)

#### H1: Effort expectancy has an effect positive and significant to adoption of innovation

T-statistic value of variable effort expectancy towards variables adoption of innovation more big from the T table value :  $2.56 > 1.96$  and the P value of 0.01 which means  $P \text{ Value} < 0.05$  . Test results show H1 Accepted . So variables effort expectancy has an effect positive and significant to variables adoption of innovation .

#### H2: Social influence moderate influence effort expectancy to adoption of innovation .

T-statistic value of variable social influence moderate influence effort expectancy towards adoption of innovation is greater small from T table :  $2.32 > 1.96$  and P Value of 0.01 which means  $P \text{ value} < 0.05$ . Test results show H2 is accepted . So variables social influence moderate influence effort expectancy towards adoption of innovation.

#### 3.4.1 Influence Effort Expectancy Towards Adoption of Innovation

The research results confirmed H1. Effort Expectancy had a positive and significant effect on QRIS usage among MSMEs assisted by ABM Preneur. This indicates that the more practical and user-friendly the QRIS interface is for business owners, the greater their incentive to abandon cash transactions. This finding aligns with research [8], which states that ease of use is a key determinant in the adoption of new technology, especially in the micro-enterprise sector, which has limited technical resources.

MSMEs are generally managed by their owners and are highly mobile. QRIS offers a very simple transaction process: simply show a QR code and scan it. When MSMEs assisted by ABM Preneur perceive that QRIS does not require complex technical expertise, they are more likely to use the technology in their daily business activities. This finding aligns with research [5].

One of the barriers faced by traditional MSMEs is tedious manual bookkeeping. QRIS provides business convenience in the form of automated recording. Because MSMEs perceive the "effort" expended in summarizing financial reports is reduced with the help of digital transaction history, this perceived ease encourages them to continue using QRIS. This research finding aligns with research [10].

Managing cash requires additional effort, such as providing change and the risk of receiving counterfeit bills. QRIS eliminates the need for "effort" to find small change. The greater the perception among MSMEs that QRIS reduces the hassle of managing cash, the greater their interest in adopting it. [11].

However on the contrary, the results study This No in harmony with study [6] revealed that that convenience use platform influential positive However No significant to interest purchase something product .

The UKM owners who are members in ABM Preneur adopt use of QRIS with reason :

- 1) Improvement Potential Sales : Can accept payment from various type application non- cash payments.
- 2) Reduce Cost : Pressing cost cash management in a way physique .
- 3) Improving Business Image : Impressed modern and adaptive to technology so that increase trust customer .
- 4) Transaction Automatic : Facilitate the transaction process , speed up the closing process cashier , and help monitoring real -time cash flow .
- 5) Recording Transaction Complete : History transaction recorded in a way automatic and can accessible When just
- 6) Transaction Fast and Practical : Transaction only need scanning QR code via application payment or mobile banking on your cell phone .
- 7) No Cash Needed : Free from hassle provide change , risk of money being lost or not enough .
- 8) Choice Wide Payment : Can use various application connected digital wallet or mobile banking to QRIS.
- 9) Safe: Transactions protected Because all QRIS providers are supervised by Bank Indonesia.
- 10) Avoided from Counterfeit Money : None Again concern receiving counterfeit money Because all transaction done digitally.

### **3.4.2 Social influence in Moderating Influence Effort Expectancy To Adoption of Innovation .**

Research result shows : H2 Accepted . So that social influence moderate influence effort expectancy to adoption of innovation . Meaning : Social influence is able to increase influence effort expectancy to adoption of QRIS innovation . So that the more big influence social influence so will the more increase influence effort expectancy towards the adoption of innovation . Research results This in harmony with study [8] [16] [17] which show that attitude and psychology somebody especially Gen Z, and the desire For enlarge the target market influential significant to interest For adopt QRIS technology.

#### 4. CONCLUSION

Study This disclose that effort expectancy influence Adoption of QRIS Innovation. Moderation test results disclose that social influence moderates the influence of effort expectancy to Adoption of QRIS Innovation . The findings of this study provide MSME owners with knowledge about the importance of social influence . MSME owners should provide QRIS payment services because currently, millennials, Gen Z, and even all groups want a practical, fast, and secure QRIS payment system.

Cashless payments are becoming increasingly popular, prompting consumers to seek out SMEs that offer QRIS payment systems. MSME owners who persist with traditional payment systems will see their sales revenue decline, lose out to competition, and ultimately, their businesses could close.

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