BIEJ Business Innovation and Entrepreneurship Journal

Volume 5 No.4 2023

QRIS Adoption by MSMEs in the UTAUT Perspective

Wahyuningsih[1]; Alam Avrianto[2]
Faculty of Economics, Universitas Garut
Jalan Raya Samarang No. 25A Garut 44151, West Java, Indonesia
wahyuningsih@uniga.ac.id

***Abstract*– In Indonesia, QRIS is presently a payment system that is gaining popularity. However, there are still a number of obstacles in the way of MSMEs using QRIS as a payment method. The purpose of this study is to use the UTAUT and TAM constructs to more thoroughly investigate the factors that influence MSMEs in the Garut Regency to adopt QRIS. Utilising a quantitative methodology, this investigation. The variables in this research consist of Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), User Attitude (UA), adoption of QRIS (Adopt), and Financial Literacy (FL). The research results show that the factors that encourage increased financial literacy in MSMEs include Performance Expectancy, Social Influence, and User Attitude. Meanwhile, the factors that encourage the adoption of QRIS by MSMEs are Social Influence, User Attitude, and Financial Literacy.**
Keywords: SMEs; UTAUT; QRIS adoption; Financial Literacy.

I. INTRODUCTION

MSMEs, which work in the industrial, trade, service, agricultural, and other sectors, dominate the economy of Garut Regency, one of the regencies in West Java. Due to their large contribution to employment and their about 60% share of the Garut Regency's Gross Regional Domestic Product (GRDP), MSMEs play a key role in the region [1]. In order to increase the economic growth of Garut Regency in a sustainable way, MSMEs development is a key approach.

To encourage MSMEs in expanding, developing, and playing a larger part in fostering regional economic growth, the government offers the proper incentives and support. The introduction of the Quick Response Code Indonesian Standard (QRIS) is one of the government's measures to promote MSME performance improvement. In order to help MSMEs run their businesses more efficiently, more competitively, and with greater market access, as well as to hasten Indonesia's economic growth through economic digitization, QRIS has been launched as a payment method [2]. Data from the Ministry of Cooperatives and SMEs of the Republic of Indonesia indicates that there would be 20.76 million MSMEs in 2022, with a digital technology adoption achievement of 32.44%, including the adoption of QRIS technology by MSMEs [3], [4].

The use of QRIS as a payment mechanism by MSMEs confronts a number of obstacles, despite the fact that it has grown in popularity in Indonesia. Among these issues is MSME actors' ignorance of QRIS's use and advantages; inadequate technological infrastructure, such as erratic internet connections and hardware that is not QRIS compatible; MSMEs believe that the expenditures associated with using QRIS are quite high and unrelated to the size of the business; Lack of assistance and incentives from the government and financial institutions; MSMEs continue to favour accepting cash payments since they are simpler to handle and process, especially for those who are still learning how to use new technologies [5].

According to a summary of earlier studies, User Attitude, as described in the Technology Acceptance Model (TAM) theory [6][7][8], Performance Expectancy, Effort Expectancy, and Social Influence, which are indicators measured by the Unified Theory of Acceptance and Use of Technology (UTAUT) theory [9][10][5], all have an impact on technology adoption. In addition to these characteristics, there are other indicators that support technology adoption, such as financial literacy [11][12].

This study's objective is to investigate in greater detail the elements that influence MSMEs in the Garut Regency to adopt QRIS so that the success factors for doing so can be verified and explored.

II. LITERATURE REVIEW

TAM and UTAUT

The main purpose of TAM is to provide a basis for exploring the influence of external factors on user beliefs, attitudes, and goals. The constructs contained in TAM include Perceived usefulness, Perceived ease of use, Attitude toward use, Behavioral intention to

e-ISSN : 2684-8945
DOI: https://doi.org/ 10.35899/biej.v5i3.679

use, and Actual system of use [13]. Venkatesh and Davies developed and tested the TAM2 model, which aims to add indicators in terms of social influence and cognitive instrument processes that influence perceived usefulness and intention to use [14]. The next development was that TAM2 was modified again in 2008, and it was called TAM3. In the latest development, TAM3 adds a new dimension to Perceived ease of use (PEOU). The development of TAM aims to form basic assumptions that can predict and explain behavior that drives the use of technology that continues to develop [15].

The Unified Theory of Acceptance and Use of Technology (UTAUT) paradigm was developed by Venkatesh et al. in 2003. This theory is based on earlier theories of technology acceptance and adoption, including the Technology of Acceptance Model (TAM), Task-Fit Technology, Theory of Planned Behaviour (TPB), and the Theory of Reason Action (TRA). A person's interest in using a technological information system and subsequent user behaviour are both explained by UTAUT. This hypothesis is based on four main factors: interest in using information technology systems, use of those systems, and behaviour when using them. Performance expectancy, Effort expectancy, Social Influence, and Facilitating Conditions are the four main drivers in question[16]. The Extended UTAUT model, commonly known as the UTAUT2 model, demonstrates that there is behavioural intention and behaviour when using technology. This theoretical model has been heavily influenced by previous research due to the widespread use of UTAUT2 in numerous investigations. This theoretical model can be expanded based on the fact that every researcher uses a different technology, population, and culture. This allows for the formation of new constructs in this theoretical model as a result of the variations across studies.

Performance Expectancy

Performance expectations are a person's belief that doing a job will be easier if they use a system[17]. Performance expectancy is an analysis that measures how much a person believes that using a system will easily help them gain benefits in their work[18]. The measurement of usefulness can be seen based on the frequency of use of the services provided. If users feel their work has been made easier when using a system, they will continue to adopt and use it on an ongoing basis. When the system can provide ease of use, it improves the performance of its users [19].

Effort Expectancy

The ease with which a system may be used, as defined by Venkatesh, is what determines how much effort (both physically and mentally) users must expend to complete their tasks [16]. Information technology is easy to understand, it easily fulfils user requests, using it will improve user skills, and it is simple to use, according to Davis's overview of indicators of ease of use of information technology [13].

As a result of this justification, users of information technology feel that people will be more interested in utilising information technology if it is more adaptable, simple to use, and understand. A system's ease of use indicates how tough the effort will be to utilise it, and the opposite is true for systems that are difficult to use [17]. A user will feel more comfortable utilising information technology if it is simple to use and gives them the impression that it has been used before [7]. The simplicity of a system's operation may also have an impact on acceptance. This is a psychological indicator that the consumer is more receptive to straightforward information. Someone may be more inclined to adopt and employ a new system if it is convenient [11].

Social Influence

Social influence is the level of individual trust in their social environment that convinces individuals to use the new system. Social influence is the extent to which an individual perceives the interests that are trusted by others and that will influence him to use a new system [9]. According to Davis et al., social influence has an impact on individual behavior through three mechanisms, including compliance, internalization, and identification [13]. The more influence an environment has on potential users of information technology, the greater the interest that arises from a potential user in using information technology because of the strong influence of the surrounding environment [20], [21].

User Attitude

User Attitude was developed from Attitude toward Using TAM, which is conceptualized as an attitude toward using a system in the form of acceptance or rejection as an impact when someone uses technology in their work [13]. Attitude explains a person's acceptance of information technology. A person's attitude consists of cognitive elements (perspective), affective components, and components related to behavior (behavioral components) [12]. Attitude is a

e-ISSN : 2684-8945
DOI: https://doi.org/ 10.35899/biej.v5i3.679

form of evaluation of the consequences of carrying out a behavior [22].

Financial literacy

Knowledge, attitudes, and behaviour around finances are all parts of financial literacy [17]. The ability to comprehend financial terms, goods, and services as well as to independently manage one's financial resources is referred to as financial literacy [23]. The understanding of and proficiency with using financial services and goods connected to digital platforms is known as digital financial literacy [20]. Socioeconomics has an impact on financial literacy, and it also has an impact on how people shop. The level of financial knowledge a person has affects their enthusiasm in using technology [24]. The ability to manage one's finances, such as by choosing to invest, save, or use digital wallets to facilitate transactions for buying and selling, can be influenced by one's level of financial literacy [8].

Adoption

Adopting technology is a behaviour that occurs when a system is adopted. Technology adoption is characterised as a type of external psychomotor response that is assessed by a person who really uses the technology [13]. Measurement of the frequency and duration of technology use is one way to conceptualise technology adoption [25]. If someone thinks the system is user-friendly and boosts productivity, which is demonstrated by the actual circumstances of its use, they will feel satisfied while using it [26]. Repetition and increased frequency of use are used to gauge technology adoption [27].

III. RESEARCH METHODS

The methodology used in this study is quantitative [28][29]. The descriptive methodology used in this study is determined by its goal. This study uses exploratory research, which is specific to the sort of investigation. The unit of analysis that is used is the individual analysis unit. This study uses a cross-section to determine the implementation time.

According to Venkatesh et al. (2003), a research hypothesis can be constructed using the UTAUT model and modified by including financial literacy as a mediating variable. The following is the resulting theory:

H1a : There is a positive effect of Performance Expectancy on Financial Literacy
H1b : There is a positive effect of Performance Expectancy on the Adoption of QRIS
H2a : There is a positive effect of Effort Expectancy on Financial Literacy
H2b : There is a positive effect of Effort Expectancy on the Adoption of QRIS
H3a : There is a positive effect of Social Influence on Financial Literacy
H3b : There is a positive influence of Social Influence on the Adoption of QRIS
H4a : There is a positive influence of User Attitude on Financial Literacy
H4b : There is a positive influence of User Attitude on Adoption of QRIS
H5 : There is a positive effect of Financial Literacy on the Adoption of QRIS

Exogenous, endogenous, and mediating variables are among the many variables that make up the operationalization of variables in this study. Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and User Attitude (UA) are examples of exogenous factors. Adopting QRIS is the endogenous variable. Financial Literacy (FL) is the mediating factor in the meantime.

Data was gathered using questionnaires that were sent to respondents directly via email, in-person, or online form. All MSME actors in the Garut Regency who were registered (with permissions or NIB) with the Office of Cooperatives and UKM were the study's target group. In 2021, there will be 9,371 MSMEs that have been registered and granted licences. Non-probability sampling was the style of sample employed in the study. There were 100 samples collected [30]. Purposive sampling was chosen as the sampling method in this study, and MSMEs that had been using QRIS for about six months were the primary criteria for sample selection [31].

In order to determine if the questionnaire employed in this study satisfies the criteria for a suitable measuring instrument or not, it must be tested for validity and reliability [32]. Since this study uses a questionnaire to collect quantitative data, this instrument must meet these criteria. The following phase is verification analysis in the form of hypothesis testing using statistical tests, which entails determining the link between research variables, when the data are deemed valid and reliable. Using the Structural Equation Model-Partial Least Square [33], verification analysis was performed.

SEM analysis is used to confirm the model. The statistical tool that will be used in this study is smartPLS (Partial Least Squares-Structural Equation Modeling) version 3 software because this study uses

e-ISSN : 2684-8945
DOI: https://doi.org/ 10.35899/biej.v5i3.679

multivariate statistical techniques by presenting three types of research variables, namely independent variables, mediating variables, and dependent variables [34]. This analysis was carried out based on the research objectives. The steps were as follows: (1) Measurement Model (Outer Model); and (2) Evaluation of the Structural Model (Inner Model). The final step in quantitative data analysis is testing the hypothesis and the moderating effects of the model [32].

IV. RESULT AND DISCUSSION

Profil of Participant

The sample is determined based on the criteria for MSME actors who have used QRIS for at least the last six months. The profile of the respondents is described in Table 1.

Table 1. Profile of Participant

Criteria	Sub Criteria	Amount
Age	18 – 22 years	7
	23 – 27 years	25
	28 – 32 years	41
	33 – 45 years	19
	> 46 years	8
Gender	Man	68
	Woman	32
Education	Elementary School	5
	Junior High School	14
	Senior High School	57
	Diploma/Bachelor Degree	14
	Others	10
Length of business	< 1 years	16
	1 – 3 years	27
	4 – 5 years	43
	> 5 years	15
Business Volume Per Month	< Rp. 5.000.000	33
	Rp. 5.000.001 – Rp. 15.000.000	15
	Rp. 15.000.0001 – Rp. 30.000.000	14
	> Rp. 30.000.000	1

Source: Processed data

In the age category, most respondents were in the age range of 28–32 years. According to WHO, the age category is early adulthood, which is the stage where a person is required to develop independently to find an identity that will determine his future. In the gender category, most of the respondents were male. This is in line with the patriarchal culture that is still widely embraced by Indonesian society, where men are the ones who have to be responsible for providing for their families. Regarding the characteristics of respondents based on their level of education, most of them are senior high school students. This shows the fact that high school graduates have little chance of being accepted to work in the formal sector, so respondents choose to be self-employed, which provides a greater chance of success than working in the formal sector.

The characteristics of the respondents based on the length of the business are mostly MSME actors who have businesses aged 4-5 years. This is in line with the findings of BPS (2020), which state that employment providers have decreased in the past 5 years. While the characteristics of respondents based on business volume stated that most MSME actors had business volumes in the range of Rp. 5000.0001-Rp. 15,000,000 per month, This is expected because MSMEs have limited capital because they only rely on their own sources of capital, and not many can take advantage of financial institutions.

Validity and Reliability of Data

In SEM-PLS, there is a test of the validity and reliability of the data. Table 2 shows the results of testing the validity and reliability of the data.

Table 2. Validity and Reliability of Data

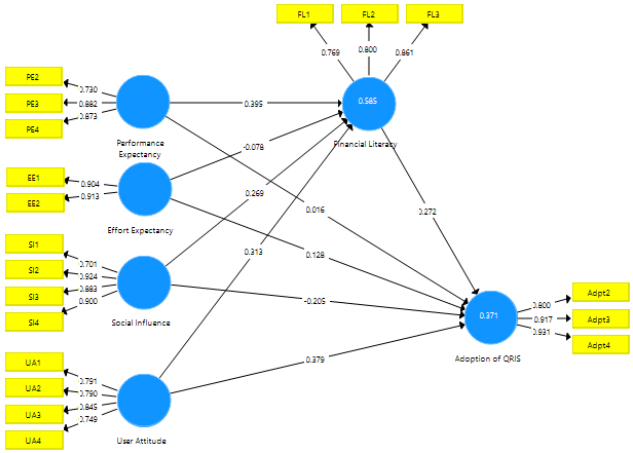
Var	CA	CR	AVE	Discriminant Validity					
				Adopt	EE	FL	PE	SI	UA
Adopt	0,859	0,915	0,783	**0,885**					
EE	0,789	0,904	0,826	0,460	**0,909**				
FL	0,739	0,852	0,657	0,482	0,474	**0,811**			
PE	0,774	0,869	0,691	0,463	0,670	0,665	**0,831**		
SI	0,875	0,916	0,734	0,179	0,293	0,559	0,397	**0,857**	
UA	0,805	0,873	0,632	0,555	0,665	0,667	0,689	0,496	**0,795**

Source: Processed data

Table 2 shows that the Cronbach's Alpha and Composite Reliability values are greater than the minimum required values, namely greater than 0.7 for confirmatory research and a value of 0.6–0.7 for exploratory research. This means that all the indicators used have good accuracy, consistency, and precision in measuring each construct in this research.

All AVE values are greater than the minimum required AVE value (> 0.5), so this indicates that the data in the study have met the requirements for convergent validity. In discriminant validity, the loading value of the indicator on the construct being measured is greater than the loading on other constructs (low cross-loadings). This shows that the different construct measures are not highly correlated [35].

e-ISSN : 2684-8945
DOI: https://doi.org/ 10.35899/biej.v5i3.679



Source: Processed data

Figure 1. Structural Model t-value diagram

Figure 1 shows the path, both directly and indirectly, of the hypothesis being tested. The path is indicated by arrows in the direction from one variable to another. This arrow symbol in one direction shows the influence of exogenous constructs on endogenous constructs. The values attached to each path are path coefficients, which are identical to the beta coefficients in regression analysis. The influence of Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and User Attitude (UA) on Financial Literacy (FL) is 58%, while the influence of Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), User Attitude (UA), and Financial Literacy (FL) towards adoption of QRIS (Adopt) is 37%.

Hypothesis Testing and Discussion

The summary of parameter estimation results from SEM-PLS analysis is in table 3 as follows:

Table 3. Structural Model Parameter Estimation Results

	Original Sample (O)	P Values	Information
EE → Adopt	0,128	0,489	Not supported
EE → FL	-0,078	0,515	Not supported
FL → Adopt	0,272	0,024	Supported
PE → Adopt	0,016	0,913	Not supported
PE → FL	0,395	0,002	Supported
SI → Adopt	-0,205	0,033	Supported
SI → FL	0,269	0,001	Supported
UA → Adopt	0,379	0,028	Supported
UA → FL	0,313	0,013	Supported

Source: Processed data

Hypothesis 1a. It is suspected that there is a positive influence of Performance Expectancy on Financial Literacy. Based on Table 3, it can be seen that the p-value is 0.002 and the original value of the positive sample is 0.395. Because the p-value <0.05, H_a is accepted. So, Performance Expectancy has a positive and significant effect on Financial Literacy. The sample's original value of 0.395 indicates that if Performance Expectancy is increased by one unit, Financial Literacy will increase by 0.323 units.

Hypothesis 1b. It is suspected that there is a positive influence of Performance Expectancy on the Adoption of QRIS. Based on Table 3, it can be seen that the p-value is 0.913 and the original value of the positive sample is 0.016. Because the p-value is > 0.05, H_0 is accepted. So, Performance Expectancy do not have a significant effect on the Adoption of QRIS.

The results are consistent with those of [11], who investigated the variables that influence user intention and e-loyalty towards FinTech adoption in Jordan following the COVID-19 era. The study's findings are consistent with [36], which looked at UAE customers adopting FinTech services and their attitudes towards technology. One of the important drivers in the suggested model was discovered to be PE in this investigation. As a result, the financial literacy of FinTech consumers rises as they utilise the benefits of technology. Contrary to popular belief, PE has little impact on the adoption of new technologies. It follows that an application's advantages do not always encourage use of the programme. If examined further, the adoption of QRIS by MSMEs is more perceived as cost-effective, whereas the use of QRIS is considered unprofitable.

Hypothesis 2a. It is suspected that there is a positive influence of Effort Expectancy on Financial Literacy. Based on Table 3, it can be seen that the p-value is 0.515 and the original sample value is negative, -0.078. Because the p-value is > 0.05, H_0 is accepted. So, Effort Expectancy does not have a significant effect on the Adoption of QRIS. Hypothesis 2b. It is suspected that there is a positive influence of Effort Expectancy on the Adoption of QRIS. Based on Table 3, it can be seen that the p-value is 0.489 and the original value of the positive sample is 0.128. Because the p-value is > 0.05, H_0 is accepted. So, Effort Expectancy does not have a significant effect on the Adoption of QRIS.

The findings are in line with the findings of Alkhwaldi et al. (2022), who examined the factors that determine user intention and e-loyalty toward FinTech adoption in Jordan after the COVID-19 era [11], which stated that Effort Expectancy did not affect FinTech adoption. The same results were stated by [36] who researched the acceptance of technology by consumers

e-ISSN : 2684-8945
DOI: https://doi.org/ 10.35899/biej.v5i3.679

using FinTech services in the UAE. However, different results were presented by [37]who stated that Effort Expectancy influences FinTech adoption. Although these results are not consistent with the hypothesis formed, they are consistent with previous studies. The results of this research are possible because MSMEs experience difficulties utilizing QRIS services. Therefore, it is recommended that QRIS developers design more user-friendly QRIS interfaces to attract individuals with lower IT skills to accept and adopt FinTech.

Hypothesis 3a. It is suspected that there is a positive influence of Social Influence on Financial Literacy. Based on Table 3, It can be seen that the p-value is 0.001 and the positive sample original value is 0.269. Because the p-value <0.05, H_a is accepted. So, Social Influence has a positive and significant effect on Financial Literacy. The original sample value of 0.269 indicates that if Social Influence is increased by one unit, Financial Literacy will increase by 0.269 units.

Hypothesis 3a. It is suspected that there is a positive influence of Social Influence on the Adoption of QRIS. Based on Table 3, It can be seen that the p-value is 0.033 and the original sample's negative value is -0.205. Because the p-value <0.05, H_a is accepted. So, Social Influence has a negative and significant effect on the Adoption of QRIS. The original sample value of -0.205 indicates that if Social Influence is increased by one unit, the Adoption of QRIS will decrease by 0.205 units.

The results are consistent with those of Alkhwaldi et al. (2022), who claimed that social influence had an impact on the adoption of fintech [11] and [37], who looked at the introduction of sustainable e-government services in northern Iraq. It's only that, in contrast to this study, the results of the original sample revealed that the association developed in this study had a negative direction of influence. The findings of [36], which claim that Social Influence has little bearing on FinTech adoption, are different from those of this study.

The results of this study show that adoption of QRIS and financial literacy are significantly impacted by SI. In other words, those close to MSMEs (family, clients, and competitors) have an impact on their awareness of QRIS. The social environment's influence, however, makes MSMEs' enthusiasm in implementing QRIS lessened. This may happen as a result of misconceptions regarding adopting QRIS, such as the high expense of employing QRIS without being balanced by knowledge on its use's advantages. It is advised that QRIS service providers employ various media to spread the word about the advantages of adopting QRIS in order to increase user numbers. This will ultimately affect a person's decision to accept and use QRIS.

Hypothesis 4a. It is suspected that there is a positive influence of User Attitude on Financial Literacy. Based on Table 3, it can be seen that the p-value is 0.013 and the original value of the positive sample is 0.313. Because the p-value <0.05, H_a is accepted. So, User Attitude has a positive and significant effect on Financial Literacy. The original sample value of 0.313 indicates that if User Attitude is increased by one unit, Financial Literacy will increase by 0.313 units.

Hypothesis 4b. It is suspected that there is a positive influence of User Attitude on the Adoption of QRIS. Based on Table 3, it can be seen that the p-value is 0.028 and the original value of the positive sample is 0.379. Because the p-value <0.05, H_a is accepted. So, User Attitude has a positive and significant effect on the Adoption of QRIS. The original sample value of 0.379 indicates that if the User Attitude is increased by one unit, the Adoption of QRIS will increase by 0.379 units.

The results are consistent with those of [12] [38] who found that User Attitude significantly and favourably influences the adoption of fintech. The study's findings are consistent with those of [22], who looked at consumer financial health in Vietnam and the effects of the COVID-19 crisis as well as financial literacy and fintech adoption.

According to the study's findings, MSMEs with greater degrees of inventiveness ought to have better attitudes towards FinTech services with significant predictive relevance and huge impact sizes. Personal innovation is therefore a significant barrier to consumers using fintech services, which leads to a poor uptake of fintech services. This result indicates that QRIS may not be as appealing to less creative consumers as other traditional financial services. Lack of knowledge of the service, a lack of an innovative mentality, confusion about the technology itself, fear of failure, and the time and effort required to grasp it are some possible causes of this behaviour.

Hypothesis 5. It is suspected that there is a positive effect of Financial Literacy on the Adoption of QRIS. Based on Table 3, It can be seen that the p-value is 0.024 and the positive sample original value is 0.272. Because the p-value < 0.05, Ha is accepted. So, Financial Literacy has a positive and significant effect on the Adoption of QRIS. The original sample value of 0.272 indicates that if Financial Literacy is increased

e-ISSN : 2684-8945
DOI: https://doi.org/ 10.35899/biej.v5i3.679

by one unit, Adoption of QRIS will increase by 0.272 units.

The results shown above are consistent with those of Setiawan et al. (2021), who found that financial literacy affects the adoption of fintech [12]. These results show a linear association between the intention to adopt and utilise QRIS among MSMEs who use QRIS and have a higher degree of financial literacy. As a result, it is believed that QRIS contributes greatly to greater financial inclusion. Compared to MSMEs without QRIS, MSMEs that use QRIS can perform financial transactions in a wider range of ways. Given that users may have easy access to financial tools and facilities, QRIS is regarded as a useful instrument for carrying out financial transactions for MSMEs.

V. CONCLUSION AND SUGGESTION

This paper presents the factors influencing QRIS adoption and financial literacy among MSMEs in Garut Regency, Indonesia. In recent years, QRIS users have increased, but there are still obstacles for MSMEs to adopt QRIS. There is a significant positive correlation between factors that encourage increased financial literacy and QRIS adoption in the Garut Regency. This shows that MSMEs are aware of the importance of increasing financial literacy, which has an impact on the adoption of digital technology and are open to the adoption of innovations in the financial sector. Factors that encourage increased financial literacy in MSMEs include Performance Expectancy, Social Influence, and User Attitude. Meanwhile, the factors that encourage the adoption of QRIS by MSMEs are Social Influence, User Attitude, and Financial Literacy.

VI. REFRENCES

[1] B. Badan Pusat Statistik, “DATA PDB Nasional,” 2021.

[2] R. Ridwan, S. Abdullah, and F. Yusmita, “Implementation of Cashless Policy Strategies To Minimize Fraud in the Government Sector: Systemic Review,” *J. Akunt.*, vol. 12, no. 3, pp. 181–201, 2022, doi: 10.33369/jakuntansi.12.3.181-201.

[3] K. K. Kementerian Koperasi dan UKM Republik Indonesia, “Data UMKM Pengguna QRIS. Data Internal.” 2021.

[4] G. A. F. Maulani and N. A. Hamdani, “Perencanaan Strategis Sistem Informasi pada Perguruan Tinggi Swasta di Indonesia (Studi Kasus pada Institut Pendidikan Indonesia Garut),” *J. PETIK*, vol. 4, no. September, pp. 162–166, 2018, doi: https://doi.org/10.31980/jpetik.v4i2.367.

[5] E. Susanto, I. Solikin, and B. S. Purnomo, “a Review of Digital Payment Adoption in Asia,” *Adv. Int. J. Business, Entrep. SMEs*, vol. 4, no. 11, pp. 01–15, 2022, doi: 10.35631/aijbes.411001.

[6] M. Rouidi, A. E. Elouadi, A. Hamdoune, K. Choujtani, and A. Chati, “TAM-UTAUT and the acceptance of remote healthcare technologies by healthcare professionals: A systematic review,” *Informatics Med. Unlocked*, vol. 32, no. June, p. 101008, 2022, doi: 10.1016/j.imu.2022.101008.

[7] S. Singh, M. M. Sahni, and R. K. Kovid, “What drives FinTech adoption? A multi-method evaluation using an adapted technology acceptance model,” *Manag. Decis.*, vol. 58, no. 8, pp. 1675–1697, 2020, doi: 10.1108/MD-09-2019-1318.

[8] E. A. Firmansyah, M. Masri, M. Anshari, and M. H. A. Besar, “Factors Affecting Fintech Adoption: A Systematic Literature Review,” *FinTech*, vol. 2, no. 1, pp. 21–33, 2022, doi: 10.3390/fintech2010002.

[9] P. K. Chopdar, “Adoption of Covid-19 contact tracing app by extending UTAUT theory: Perceived disease threat as moderator,” *Heal. Policy Technol.*, vol. 11, no. 3, p. 100651, 2022, doi: 10.1016/j.hlpt.2022.100651.

[10] W. H. Bommer, S. Rana, and E. Milevoj, “A meta-analysis of eWallet adoption using the UTAUT model,” *Int. J. Bank Mark.*, vol. 40, no. 4, pp. 791–819, 2022, doi: 10.1108/IJBM-06-2021-0258.

[11] A. F. Alkhwaldi, E. E. Alharasis, M. Shehadeh, I. A. Abu-AlSondos, M. S. Oudat, and A. A. Bani Atta, “Towards an Understanding of FinTech Users’ Adoption: Intention and e-Loyalty Post-COVID-19 from a Developing Country Perspective,” *Sustain.*, vol. 14, pp. 1–23, 2022, doi: 10.3390/su141912616.

[12] B. Setiawan, D. P. Nugraha, A. Irawan, R. J. Nathan, and Z. Zoltan, “User innovativeness and fintech adoption in indonesia,” *J. Open Innov. Technol. Mark. Complex.*, vol. 7, no. 3, 2021, doi: 10.3390/joitmc7030188.

[13] Fred D. Davis, “Perceived usefulness, perceived ease of use, and user acceptance of IT,” *MIS Q.*, vol. 13, no. 3, pp. 319–340, 1989.

[14] V. Venkatesh and F. D. Davis, “Theoretical

e-ISSN : 2684-8945
DOI: https://doi.org/ 10.35899/biej.v5i3.679

extension of the Technology Acceptance Model: Four longitudinal field studies," *Manage. Sci.*, vol. 46, no. 2, pp. 186–204, 2000, doi: 10.1287/mnsc.46.2.186.11926.

[15] M. M. Black, "Idiopathic Pigmentation of the Upper Back," *Arch. Dermatol.*, vol. 110, no. 3, pp. 463–464, 1974, doi: 10.1001/archderm.1974.01630090089029.

[16] V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User acceptance of information technology: Toward a unified view," *MIS Q. Manag. Inf. Syst.*, vol. 27, no. 3, pp. 425–478, 2003, doi: 10.2307/30036540.

[17] R. Chan, I. Troshani, S. Rao Hill, and A. Hoffmann, "Towards an understanding of consumers' FinTech adoption: the case of Open Banking," *Int. J. Bank Mark.*, vol. 40, no. 4, pp. 886–917, 2022, doi: 10.1108/IJBM-08-2021-0397.

[18] A. D. Walle *et al.*, "Intention to use wearable health devices and its predictors among diabetes mellitus patients in Amhara region referral hospitals, Ethiopia: Using modified UTAUT-2 model," *Informatics Med. Unlocked*, vol. 36, no. December 2022, p. 101157, 2023, doi: 10.1016/j.imu.2022.101157.

[19] A. Schmitz, A. M. Díaz-Martín, and M. J. Yagüe Guillén, "Modifying UTAUT2 for a cross-country comparison of telemedicine adoption," *Comput. Human Behav.*, vol. 130, no. January, 2022, doi: 10.1016/j.chb.2022.107183.

[20] Vandana and H. P. Mathur, "Conceptual Development of Factors Driving Fintech Adoption by Farmers," *Purushartha*, vol. 15, no. 1, pp. 39–50, 2022, doi: 10.21844/16202115103.

[21] G. A. F. Maulani and N. A. Hamdani, *Perencanaan Strategis Sistem Informasi Menggunakan Blue Ocean Strategy*. Bandung: Penerbit widina, 2023. [Online]. Available: https://repository.penerbitwidina.com/publications/563016/perencanaan-strategis-sistem-informasi-menggunakan-blue-ocean-strategy

[22] R. J. Nathan, B. Setiawan, and M. N. Quynh, "Fintech and Financial Health in Vietnam during the COVID-19 Pandemic: In-Depth Descriptive Analysis," *J. Risk Financ. Manag.*, vol. 15, no. 3, 2022, doi: 10.3390/jrfm15030125.

[23] E. Kusmiati and V. Cahyani, "Analysis of Financial Literacy Factors for SMEs," in *Proceedings of International Conference on Sustainable Collaboration in Business , Technology, Information and Innovation (SCBTII)*, School of Economics and Business, Telkom University, 2022.

[24] D. P. Nugraha, B. Setiawan, R. J. Nathan, and M. Fekete-Farkas, "Fintech Adoption Drivers for Innovation for SMEs in Indonesia," *J. Open Innov. Technol. Mark. Complex.*, vol. 8, no. 4, 2022, doi: 10.3390/joitmc8040208.

[25] N. T. Matsepe and E. Van der Lingen, "Determinants of emerging technologies adoption in the South African financial sector," *South African J. Bus. Manag.*, vol. 53, no. 1, pp. 1–12, 2022, doi: 10.4102/sajbm.v53i1.2493.

[26] B. J. Slazus and G. Bick, "Factors that Influence FinTech Adoption in South Africa: A Study of Consumer Behaviour towards Branchless Mobile Banking," *Athens J. Bus. Econ.*, vol. 8, no. 1, pp. 429–450, 2022, doi: 10.30958/ajbe.8-1-3.

[27] B. Awwad, "FinTech Adoption in Palestine : Bank Customers' Perspectives," *Int. J. E-bus. Res.*, vol. 19, no. 1, 2023, doi: 10.4018/IJEBR.318662.

[28] J. W. Creswell, *Research Design Qualitative, Quantitative, and Mixed Methods Approaches*, 4th ed. United States of America: SAGE Publications Ltd., 2014.

[29] Sugiyono., *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, CV.

[30] J. F. Hair, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Thousand Oaks*. Thousand Oaks, CA, 2017.

[31] william G. Cochran, *Sampling Techniques*, 3th ed. Wiley, New York, NY: Wiley, New York, NY, 1997.

[32] J. F. Hair, J. J. Risher, M. Sarstedt, and C. M. Ringle, "When to use and how to report the results of PLS-SEM," *Eur. Bus. Rev.*, vol. 31, no. 1, pp. 2–24, 2019, doi: 10.1108/EBR-11-2018-0203.

[33] S. Akter, S. Fosso Wamba, and S. Dewan, "Why PLS-SEM is suitable for complex modelling? An empirical illustration in big data analytics quality," *Prod. Plan. Control*, vol. 28, no. 11–12, pp. 1011–1021, 2017, doi: 10.1080/09537287.2016.1267411.

[34] M. I. Aguirre-Urreta and M. Rönkkö, "Statistical inference with PLSc using

e-ISSN : 2684-8945
DOI: https://doi.org/ 10.35899/biej.v5i3.679

bootstrap confidence intervals1," *MIS Q. Manag. Inf. Syst.*, vol. 42, no. 3, pp. 1001–1020, 2018, doi: 10.25300/MISQ/2018/13587.

[35] J. M. Becker, A. Rai, C. M. Ringle, and F. Völckner, "Discovering unobserved heterogeneity in structural equation models to avert validity threats," *MIS Q. Manag. Inf. Syst.*, vol. 37, no. 3, pp. 665–694, 2013, doi: 10.25300/MISQ/2013/37.3.01.

[36] M. Bouteraa, B. Chekima, N. Lajuni, and A. Anwar, "Understanding Consumers' Barriers to Using FinTech Services in the United Arab Emirates: Mixed-Methods Research Approach," *Sustain.*, vol. 15, 2023, doi: 10.3390/su15042931.

[37] M. Zeebaree, M. Agoyi, and M. Aqel, "Sustainable Adoption of E-Government from the UTAUT Perspective," *Sustain.*, vol. 14, 2022, doi: 10.3390/su14095370.

[38] M. F. Hamzah, T. M. T. A. Razak, C. K. H. C. K. Yahaya, Z. Shamsuddin, and S. N. A. Zahrin, "Adoption Factors of FinTech Products & Services in Islamic Banking Industry in Malaysia: A Literiture Review," *J. Posit. Sch. Psychol.*, vol. 6, no. 3, pp. 8883–8893, 2022.

e-ISSN : 2684-8945
DOI: https://doi.org/ 10.35899/biej.v5i3.679