

The Impact of Quick Response Adoption of Payment Code on MSMEs' Financial Performance in Indonesia

Ratih Anindita Wardhani^{1*}, Yandra Arkeman², Wita Juwita Ermawati³

Faculty of Economics and Management, IPB University, West Java, Indonesia^{1,3}

Faculty of Agricultural Technology, IPB University, West Java, Indonesia²

Email: ratih.kin@gmail.com*, yandra.arkeman@gmail.com,

witaman@apps.ipb.ac.id

Article Information

Received: February 19, 2023

Revised: February 28, 2023

Approved: March 20, 2023

Online: March 24, 2023

ABSTRACT

The COVID-19 and digitalization trends have brought changes to the way producers and consumers interact, especially in payment transactions. In Indonesia, one method of using digital payments is using a QR code standard known as the Quick Response Code Indonesian Standard (QRIS). In accepting technology, the Technology Acceptance Model (TAM) can help predict one's acceptance of technology. The purpose of this research is to see the effect of adopting QR codes for payment on the financial performance of MSMEs in Indonesia and identify the factors and indicators that influence MSMEs in adopting QRIS. There were 296 respondents, who are users and non-users of QRIS from micro businesses throughout Indonesia. Questionnaires were distributed online, and data processing used the Structural Equation Model (SEM). The results show that the intention to adopt QRIS can significantly affect the financial performance of MSMEs, which in this case relates to an increase in the number and nominal transactions, sales turnover, business cash flow, and sales records. Perceived ease of use, social influence, perceived usefulness, and perceived cost have a significant effect on influencing micro businesses to use QRIS. On the other hand, perceived compatibility, trust, personal innovativeness, and moderating variable such as length of business and experience of using digital payment does not significantly affect the micro business intention of using QRIS.

Keywords

digital payment; financial performance; technology acceptance model; QR code payment; QRIS

INTRODUCTION

The development of the digitalization trend in Indonesia, which is growing rapidly, has brought changes to how producers and consumers interact in doing business. Internet user penetration up to the first quarter of 2020 can reach 73.70% and continue to grow until early 2022 which reaches 76.70% (APJII, 2020). The COVID-19 pandemic has also increasingly encouraged e-commerce transactions, electronic money and digital banking. E-commerce transactions in 2021 were recorded at IDR 401 trillion, an increase from 2020 which had a nominal transaction of IDR 206 trillion. In line with e-commerce transactions, electronic money transactions will also increase in 2021 compared to 2020, which were recorded at IDR 305 trillion and IDR 205 trillion respectively. Digital banking transactions also show an increase in nominal transactions in 2021 compared to 2020 which were recorded at IDR 39,874 trillion and IDR 27,547 trillion respectively.

Triggered by the COVID-19 pandemic, to minimize physical contact in transactions requires innovation in the retail payment system. Bank Indonesia collaborated with the Indonesian Payment System Association (ASPI) to issue the Quick Response Code Indonesian Standard (QRIS), which is a QR code standard to facilitate payment transactions in Indonesia. Data from Bank Indonesia, QRIS users at the end of 2021 are 14.78 million users and by the end of 2022 there will be 23.9 million users (Bank Indonesia, 2022). The increase in the

number of QRIS merchants shows QRIS's increasingly acceptable acceptance among Micro, Small and Medium Enterprises (MSMEs) owners. This is also in line with the data from the Ministry of Cooperatives and Development, where the largest number of MSMEs in 2019 are micro businesses with 64.6 million users. Bank Indonesia is targeting 45 million MSMEs users in 2023, so that there is still a large enough share for MSMEs to adopt QRIS.

The use of QRIS to empower MSMEs is expected to have an effect on increasing the productivity of MSMEs in Indonesia, both in terms of transactions and nominal sales, profits and cost efficiency (Sulistyaningsih and Hanggraeni 2021). Financial performance is the level of performance achievement from the financial side of the goals that have been set (Memba and Gakure 2013). Increasing productivity in terms of digital payments in this study is expected to make sales records, number and nominal transactions of sales, sales turnover and business cash flow move rapidly and become more productive.

MSMEs as economic drivers in the real sector, especially micro-entrepreneurs, using QRIS is still something new. For micro-entrepreneurs in the regions, the use of cash transactions is much simpler. Information, socialization, literacy and network that have not been maximized for them including fees charged are thought to reduce MSME's intention to utilize non-cash payment systems, in this case is QRIS. The existence of the problems mentioned above is thought to reduce the intention to use QRIS, even though QRIS can affect the financial performance of MSMEs in Indonesia (Adella and Rio 2021).

In seeing the success of acceptance of a technology by users, one of the methods is the Technology Acceptance Model (TAM) introduced by Davis. TAM can predict a person's acceptance of an information technology, as well as influence users in terms of perceived usefulness and perceived ease of use in accepting a technology (Davis, 1989). Previous research related to the effect of using digital payments can have a significant impact and influence on the financial performance of MSMEs (G.-Y. Kwabena et al., 2019; Masocha & Dzomonda, 2018; Sulistyaningsih & Hanggraeni, 2021; Talom & Tengeh, 2020). The aim of the research is to see the effect of adopting QR code payments on the financial performance of MSMEs in Indonesia in terms of the number and nominal transactions, sales turnover, business cash flow and sales records, as well as identify the factors and indicators that influence MSMEs, especially micro-entrepreneurs in adopting QRIS.

METHODS

The research focus is related to the QR code for payments set by Bank Indonesia, which is called the Quick Response Code Indonesian Standard (QRIS). The online survey method was conducted on 296 respondents (Likert scale 1 to 4) which were determined by purposive sampling. Respondents were MSMEs using QRIS and non-QRIS users who have micro businesses in the processing industry in the processed food and beverage sub-commodities located throughout Indonesia. As for non-QRIS users, they must have experience in using digital payment instruments.

In sampling, the number of samples for multivariate analysis ranged from 30 to 500 (Hair et al., 2019). The recommended number is a multiple of 5 to 10 of the desired number of variables in the study. The minimum sample size specified in this study is 200 respondents which is generated by multiplying the total number of indicator variables used by 5 ($40 \times 5 = 200$). Total respondents were 296 of which 263 were QRIS users and 33 were non-QRIS users from all over Indonesia. Online questionnaires were distributed from 19 October 2022 to 25 November 2022. Sampling was carried out in a proportional percentage based on the 2020 Small and Micro Industry population data which is expected to represent national interests.

Data processing in the study was through descriptive analysis, the results of the questionnaire data were processed using Microsoft Excel 2016. Furthermore, processing using Structural Equation Modeling - Partial Least Square (SEM-PLS) was used to test hypotheses and identify the most influential factors. SEM itself is a statistical procedure to explain the relationship between several variables and identify the most influential factors (Hair et al., 2019). This research uses 14 variables, 40 indicators and 15 hypotheses. The research model is presented in Figure 1.

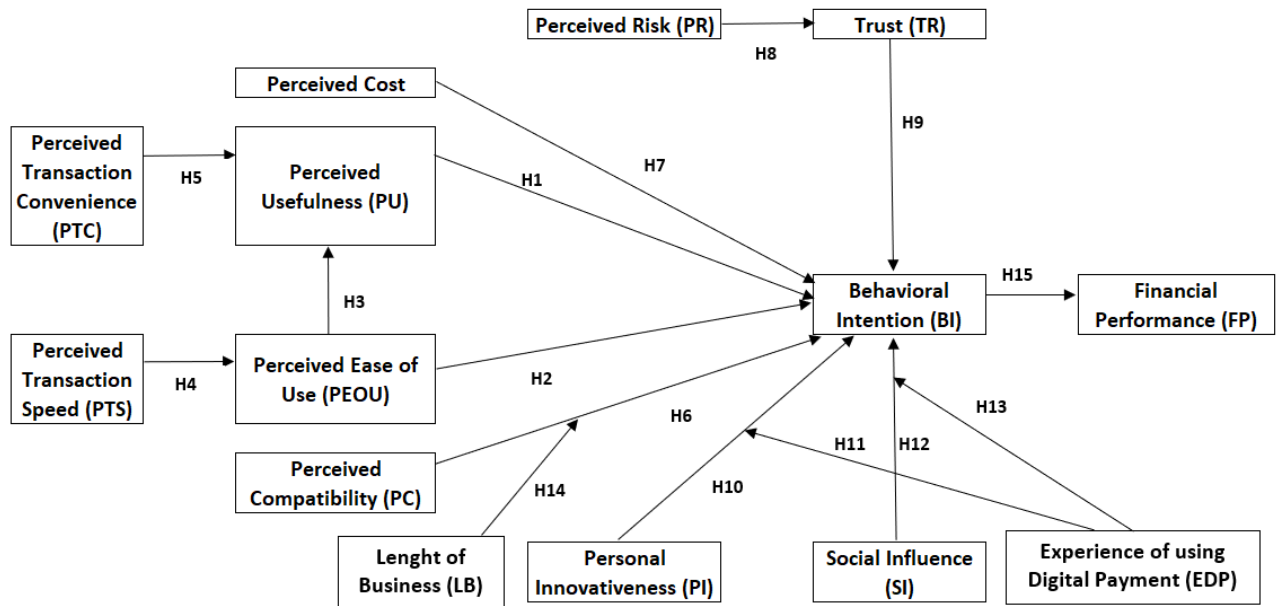


Figure 1. Research Model

Digital payments can also improve the performance of MSMEs. However, for micro-entrepreneurs interested in adopting digital payments, it is suspected that they still have obstacles including information, socialization, literacy, network and fee.

In this regard, research will look further into the variables that influence the use of QRIS and their impact on the financial performance of micro-entrepreneurs in Indonesia. It is hoped that through tests on the variables and indicators that exist in the research it can bring managerial implications in solving existing problems, as in Figure 2 which is illustrated in the research thinking framework.

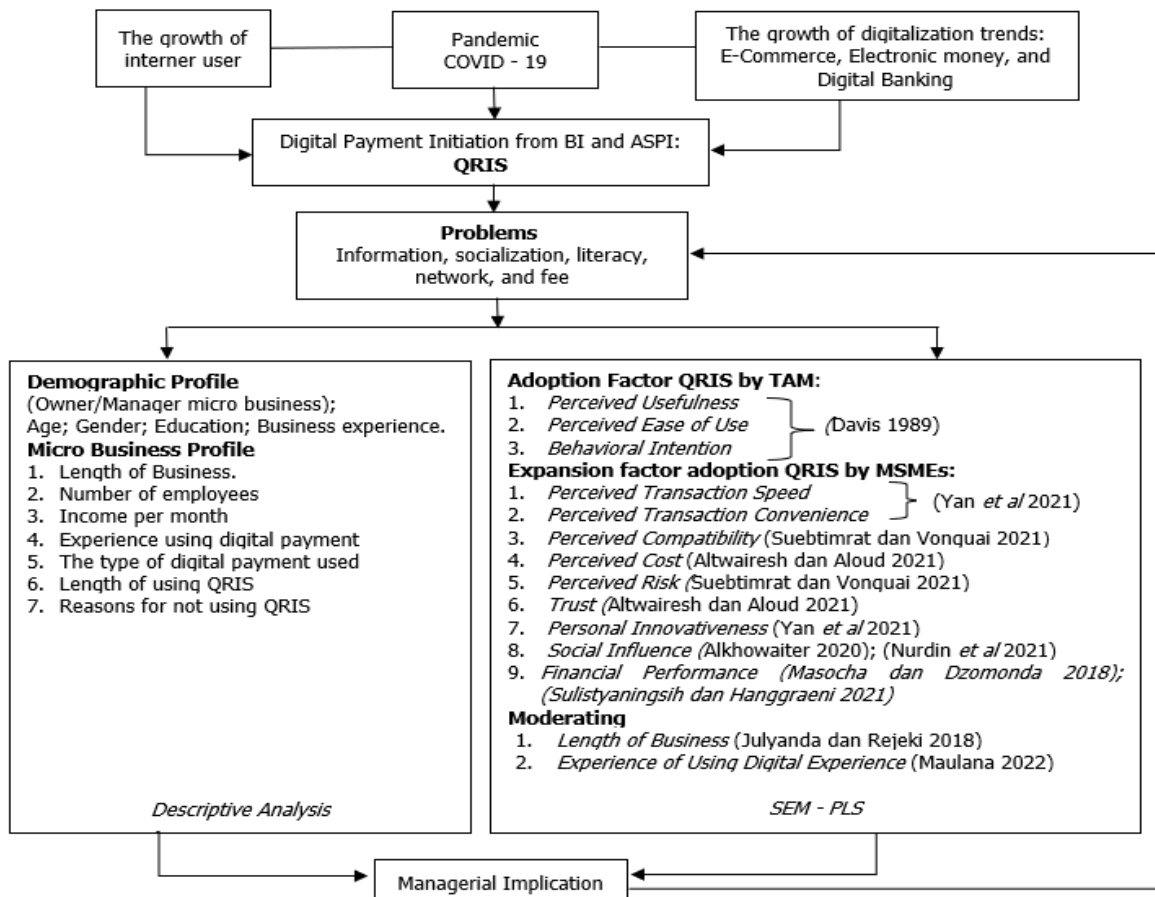


Figure 2. Thinking Framework

RESULTS**Demographic Profile and Micro Business Profile**

Based on research conducted on 296 respondents who are micro business owners, the participation of women involved in business of 68.58% is still a characteristic of micro business actors where women can do the work of managing micro businesses and taking care of the household. In terms of age, micro business owners are still dominated by an average age of 40 to 50 years at 36.49% and current micro business owners have an average of 42.23% undergraduate education and 40.88% high school.

Based on the micro business profile (Table 1), the length of business has been in operation is an average of 3 to 5 years of 32.09%. The majority of 60.47% of micro business owners have 1 to 4 employees and 52.71% of respondents have a turnover of under IDR 30 million per month. In terms of experience using digital payment instruments, 28.72% have used it for more than 3 years, with 59.12% of respondents using a combination of digital payment instrument methods such as mobile banking and mobile wallet. This indicates that currently micro-entrepreneurs are making great use of digital payment methods that can be accessed via smartphones because they are easier and more practical to use. In using QRIS, as many as 11.15% of respondents have not used QRIS because they do not understand how to register for QRIS, the network at the place of business is not good, there are transaction fees that can reduce daily income and prefer *cash* transactions.

Table 1. Demographic and Micro Business Profile

Characteristics	Category	Amount (n)	Percentage (%)
Gender	Male	93	31.42
	Female	203	68.58
Age	20 to < 30 years old	59	19.93
	30 to < 40 years old	90	30.40
	40 to < 50 years old	108	36.49
	≥ 50 Years old	39	13.18
Education	Elementary School	1	0.34
	Junior High School	9	3.04
	Senior High School	121	40.88
	DI – DIV	26	8.78
	S1	125	42.23
	S2	13	4.39
Length of business	S3	1	0.34
	< 3 years	62	20.95
	3 sd < 5 years	95	32.09
	5 to <10 years	74	25.00
Number of employees	≥ 10 years	65	21.96
	1 – 4 people	179	60.47
	5 – 19 people	106	35.81
	20 – 99 people	11	3.72
Turnover per month	< IDR 30 million/month	156	52.71
	IDR 30 million/month up to < IDR 60 million/month	86	29.05
	IDR 60 million/month up to < IDR 90 million/month	41	13.85
	≥ IDR 90 million/month	13	4.39
Length of time using digital payment methods	< 6 months	33	11.15
	6 months to < 1 year	56	18.92
	1 year to < 2 years	78	26.35
	2 years to < 3 years	44	14.86
	≥ 3 years	85	28.72
The type of digital payment used	Electronic Data Capture (EDC)	2	0.68
	Mobile Money	-	-
	Mobile Banking	58	19.59
	Mobile Wallets	61	20.61
	Combination of 2 or more payment types	175	59.12
Use of QRIS	Used	263	88.85
	Not yet used	33	11.15

Characteristics	Category	Amount (n)	Percentage (%)
Reasons for not using QRIS	Unfamiliar to register QRIS	18	54.55
	The network at the place of business is not good	6	18.18
	There is a transaction disbursement fee	6	18.18
	Others	3	9.09

Measurement Model Test (Outer Model)

Analysis using SEM - PLS, by SmartPLS 3.0 software is used to test the measurement model (outer model), test the structural model (inner model) and test the hypothesis which is done with the bootstrapping technique. The model measurement test (outer model) is used to assess the validity and reliability of the model as measured by validity and reliability tests, as well as discriminant validity tests. This test will describe the relationship between latent variables and indicators. The results of the validity test can be seen from indicators with loading scores above 0.5 or above 0.7 where the structural model is well indicated, or the Average Variance Extracted (AVE) value > 0.5 (Hair et al., 2019). From the test results, there is an outer loading which has a value slightly less than 0.7, namely Perceived Transaction Convenience 3 or PTC3 (0.653) and Financial Performance or FP1 (0.690). However, outer loading is still acceptable above 0.6 (Hair et al., 2019). In the Discriminant Validity test, indicators can be considered valid when the loading factor value has the highest value for the intended construct. From the test results on all components of the exogenous, endogenous, and moderating variables, it has shown that the loading value for each variable is higher than the indicators outside these variables. The Cronbach's Alpha reliability test is used and can reflect the reliability of the model in all indicators. The latent variable has good reliability if the Cronbach's Alpha and Composite Reliability values are above 0.7 or at least 0.6 (Chin, 1998). In the model structure, all latent variables are valid and reliable (Table 2).

Table 2. Validity and Reliability Test

Variable	Indicator	Factor loading (> 0.7)	AVE (> 0.5)	Cronbach Alpha (> 0.7)	Composite Reliability (> 0.7)
PU	PU1	0.799	0.677	0.84	0.881
	PU2	0.811			
	PU3	0.825			
	PU4	0.788			
PEOU	PEOU1	0.838	0.74	0.883	0.919
	PEOU2	0.873			
	PEOU3	0.87			
	PEOU4	0.859			
PTS	PTS1	0.874	0.733	0.819	0.892
	PTS2	0.863			
	PTS3	0.831			
PTC	PTC1	0.817	0.639	0.81	0.875
	PTC2	0.86			
	PTC3	0.653*)			
	PTC4	0.849			
PC	PC1	0.889	0.817	0.777	0.899
	PC2	0.919			
PCO	PCO1	0.894	0.75	0.831	0.899
	PCO2	0.916			
	PCO3	0.782			
PR	PR1	0.896	0.765	0.847	0.907
	PR2	0.876			
	PR3	0.852			
TR	TR1	0.94	0.878	0.861	0.935
	TR2	0.934			
PI	PI1	0.86	0.677	0.84	0.893
	PI2	0.834			
	PI3	0.842			
	PI4	0.751			
SI	SI1	0.779	0.625	0.803	0.869

Variable	Indicator	Factor loading (> 0.7)	AVE (> 0.5)	Cronbach Alpha (> 0.7)	Composite Reliability (> 0.7)
	SI2	0.784			
	SI3	0.831			
	SI4	0.767			
BI	BI1	0.889	0.794	0.87	0.92
	BI2	0.898			
	BI3	0.886			
FP	FP1	0.690 [*])	0.674	0.835	0.891
	FP2	0.859			
	FP3	0.869			
	FP4	0.852			

Structural Model Test (Inner Model)

Structural model test (inner model) is carried out to predict the relationship between variables as formulated in the hypothesis. The test is carried out through the value of the Coefficient of Determination (R^2), the value of Predictive Relevance (Q^2), and the value of Goodness of Fit (GOF). R-Square (R^2) or the coefficient of determination is the ability to test all endogenous variables that can be explained by exogenous variables and the indicators that influence them. In (Chin, 1998) the value of the coefficient of determination can be categorized as strong (above 0.67), moderate (above 0.33 but below 0.67) and weak (above 0.19 but below 0.33).

Table 3. The Coefficient of Determination

Endogenous Variables	R-Square	Criteria
BI	0.577	Moderate
FP	0.294	Weak
PEOU	0.597	Moderate
PU	0.532	Moderate
TR	0.400	Moderate

Based on Table 3, it can be concluded that the endogenous variables, Behavioral Intention (BI), Financial Performance (FP), Perceived Ease of Use (PEOU), Perceived Usefulness (PU) and Trust (TR) can be explained by all the factors in the study each of 57.7%, 29.4%, 59.7%, 53.2% and 40%, and each of the remainder is explained from factors outside the study.

Furthermore, the relative strength of the structural model's influence on observations for endogenous variables can be seen from the value of Predictive Relevance (Q^2). If Q^2 is close to 1, it indicates that the observed endogenous variables have been well constructed. Predictive relevance is calculated using the formula: $Q^2 = 1 - (1-R1^2) (1-R2^2) \dots (1-Rp^2)$, where $R1^2, R2^2 \dots Rp^2$ are the values of the coefficient of determination of the endogenous variables in the model. The results of the Predictive Relevance calculation in this study are 0.97, so it can be concluded that the model has been constructed and could estimate the data in the model well. In the model goodness test can be done by calculating the value of Goodness of Fit (GoF). GoF values range from 0 to 1, GoF small (0 - 0.25), GoF moderate (0.25 - 0.36), and GoF large (above 0.36) (Wetzels et al., 2009). Based on the test, a GoF value of 0.62 (large) was obtained which indicated that the construction produced was appropriate and had a good ability to explain data.

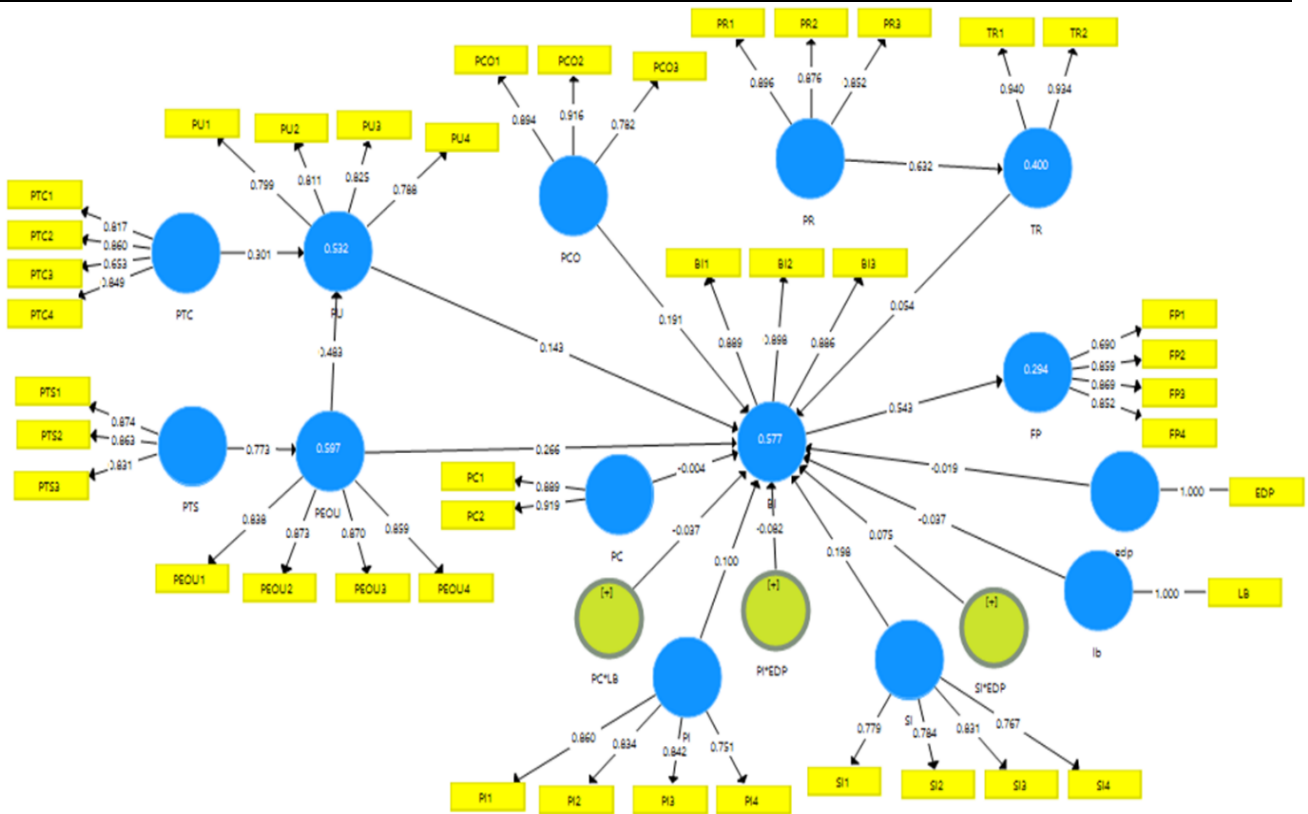


Figure 3. SEM-PLS Model Results

Hypothesis testing

The hypothesis testing was carried out using the bootstrapping procedure, where the relationship between variables in the SEM-PLS could be identified through a significance test (t-statistic) where the confidence level used was 95% (significance level at 0.05) and t-count was 1.96. The results of testing the 15 hypotheses, there are 9 significant or accepted hypotheses and 6 insignificant or rejected hypotheses (Table 4).

Table 4. Hypothesis Testing Results

No.	Hypothesis Path	Original Sample (O)	Sample Means (M)	Standard Deviation (ST-DEV)	T-Stat	P-Value	hypothesis
1	PU -> BI	0.143	0.142	0.067	2.125	0.034	Accepted
2	PEOU -> BI	0.266	0.264	0.082	3.250	0.001	Accepted
3	PEOU -> PU	0.483	0.481	0.064	7.502	0.000	Accepted
4	PTS -> PEOU	0.773	0.773	0.024	32.796	0.000	Accepted
5	PTC -> PU	0.301	0.309	0.067	4.509	0.000	Accepted
6	PC -> BI	-0.004	0.003	0.072	0.057	0.954	Rejected
7	PCO -> BI	0.191	0.182	0.065	2.920	0.004	Accepted
8	PR -> TR	0.632	0.629	0.043	14.543	0.000	Accepted
9	TR -> BI	0.054	0.057	0.082	0.655	0.513	Rejected
10	PI -> BI	0.100	0.101	0.072	1,381	0.168	Rejected
11	PI*EDP -> BI	-0.082	-0.083	0.070	1.176	0.241	Rejected
12	SI -> BI	0.198	0.200	0.067	2.946	0.003	Accepted
13	SI*EDP -> BI	0.075	0.074	0.071	1.047	0.296	Rejected
14	PC*LB -> BI	-0.037	-0.034	0.040	0.911	0.363	Rejected
15	BI -> FP	0.543	0.547	0.044	12.329	0.000	Accepted

Research shows that the adoption and intention to use QRIS in Indonesia can influence and improve the financial performance of MSMEs, especially micro-entrepreneurs. Hypothesis 15 is accepted. The significant value can be seen from the t-statistic value of 12.329 > 1.96 or the p-value of 0.000 < 0.05. Using QRIS which makes transactions faster, easier, cheaper, safer and more reliable, the financial performance of micro-entrepreneurs in terms of the number and nominal of transactions, sales turnover and business cash flow can

increase rapidly up to two times. As for recording sales using QRIS, recording becomes easier and more accurate. The research findings are in line with research related to digital payments which have proven to have an impact on SME performance (G.-Y. Kwabena et al., 2019). Other research related to mobile payment services shows positive results and influences the performance of SMEs which can reduce cash transaction processing costs, increase sales, speed up the purchasing process and make it possible to make payments to anyone and anywhere (G. Y. Kwabena et al., 2021). In other digital payment research, mobile money service adoption can affect the financial performance of SMEs (Talom and Tengeh 2020). The use of QRIS in Indonesia for micro-entrepreneurs can increase financial inclusion, empower MSMEs and accelerate National Economic Recovery after the COVID-19 pandemic.

Perceived ease of use shows a significant value on behavioral intention. Hypothesis 2 is accepted, judging from the t-statistical value of $3.25 > 1.96$ or the p-value of $0.001 < 0.05$. The relationship between perceived ease of use and perceived usefulness shows a significance value, the t-statistic $7.502 > 1.96$ or a p-value of $0.000 < 0.05$. Hypothesis 3 is accepted. This finding is in accordance with research related to digital payments that MSMEs adopt digital technology because they feel that they can provide ease of access, comfort and usability which can make work easier (Najib & Fahma, 2020) and the higher the user's perception of the ease of use of an application, the more it can support the perception of usability or benefits received from the application (Mufarih et al., 2020). In using QRIS, the easy registration process and can be understood quickly by employees, could attract micro-entrepreneurs to use QRIS.

Social influence in the use of QRIS shows a significant value seen from the t-statistic value of $2.946 > 1.96$ or a p-value of $0.003 < 0.05$. Hypothesis 12 is accepted. These findings are in line with previous research, where social media has a significant influence on knowledge of QR code payments (Nurdin et al., 2021) (Alkhowaiter 2020). The consumer indicator (SI3) in encouraging business actors to use QRIS turns out to have a large influence (Table 2), meaning that digital literacy needs to intensively encourage consumers and business actors to increase their use of digital payment technology. However, the experience of using digital payments for micro entrepreneurs does not strengthen the relationship between social influence and behavioral intention. The results show an insignificant value seen from the t-statistic value of $1.047 < 1.96$ or the p-value of $0.296 > 0.05$. Hypothesis 13 is rejected. For micro-entrepreneurs in Indonesia, other factors such as network constraints and fees can reduce the intention to use QRIS.

Perceived usefulness of applications with behavioral intention shows a significant value seen from the t-statistical value of $2.125 > 1.96$ or a p-value of $0.034 < 0.05$. Hypothesis 1 is accepted. In line with research related to mobile payments, it also shows that the use of technology has an influence on merchants to adopt the use of digital payments (Altwairesh and Aloud 2021). Micro-entrepreneurs are also starting to see digital payment technology as an alternative payment that is easy and practical to use, and merchants don't need to provide change. Supporting the digitalization program in Indonesia, the usability effect that provides practicality for micro-entrepreneurs can strengthen the intention to use QRIS.

On the perceived transaction speed toward perceived ease of use shows a significant value seen from the t-statistical value of $32.796 > 1.96$ or a p-value of $0.000 < 0.05$. Hypothesis 4 is accepted. Furthermore, perceived transaction convenience toward perceived usefulness shows a significant value seen from the t-statistic value of $4.509 > 1.96$ or a p-value of $0.000 < 0.05$. Hypothesis 5 is accepted. The adoption of QRIS in Indonesia also provides findings that the transaction speed factor and the transaction convenience factor respectively become a driving factor in perceived ease of use and perceived usefulness. This is in line with previous research where the speed of transactions will affect ease of use and convenience in using technology will affect perceptions of usefulness (Yan et al., 2021). Regarding perceived transaction convenience, the QRIS indicator that can be accessed without problems (PTC3) is something that needs attention (Table 2). This is also a factor that can reduce the intention of micro-entrepreneurs to use QRIS.

The relationship between perceived cost and behavioral intention shows a significant value in terms of the t-statistic value of $2.92 > 1.96$ or the p-value of $0.004 < 0.05$. Hypothesis 7 is accepted. The low indicator of transaction disbursement fees (PCO2) for new technology users will increase the intention to use QRIS (Table 2). Previous research on mobile money services in Zimbabwe also indicated that low costs would encourage SMEs to adopt the technology (Masocha and Dzomonda 2018). When using QRIS in Indonesia, merchant discount rate (MDR) fees and transaction disbursement fees that are charged to merchant can reduce daily income.

The relationship between perceived risk toward trust shows a significant value in terms of the t-statistic value of $14.543 > 1.96$ or the p-value of $0.000 < 0.05$. Hypothesis 8 is accepted. Risk factors are driving factors to increase confidence in adopting QRIS. However, the relationship between trust and behavioral intention in using QRIS shows no significant value, seen from the t-statistic value of $0.655 < 1.96$ or the p-value of $0.513 > 0.05$. Hypothesis 9 is rejected. In the use of QRIS in Indonesia, even though micro entrepreneurs believe that QRIS is indeed able to protect merchant and consumer personal information and has high security, there are still factors that can reduce the intention to use QRIS, such as not understanding how to register QRIS, network at the place of business is not good, transaction disbursement fees, and also still prefer cash transactions.

In the relationship between perceived compatibility and behavioral intention, the value is not significant as seen from the t-statistic value of $0.057 < 1.96$ or the p-value of $0.954 > 0.05$. Hypothesis 6 is rejected. This research is not in line with the research about QR code payments in Bangkok that technological innovation will influence someone to adopt new technology (Suebtimrat & Vonguai, 2021). Furthermore, the length of business (Julyanda & Rejeki, 2018) as a moderating variable also does not strengthen the relationship between perceived compatibility and behavioral intention, where the results show an insignificant value seen from the t-statistic value of $0.911 < 1.96$ or the p-value of $0.363 > 0.05$. Hypothesis 14 is rejected. In the relationship between personal innovativeness and behavioral intention, it shows an insignificant value, seen from the t-statistic value of $1.381 < 1.96$ or the p-value of $0.168 > 0.05$. Hypothesis 10 is rejected. In table 2, personal innovativeness indicators that need attention and improvement are related to the desire to try new technology first (PI4). Business actors in Indonesia are still comfortable with the habit of using pre-existing payment methods. The experience of using digital payment (Maulana, 2022) also does not strengthen the relationship between personal innovativeness and behavioral intention in using QRIS. The results show that the value is not significant in terms of the t-statistic value of $1.176 < 1.96$ or the p-value of $0.241 > 0.05$. Hypothesis 11 is rejected.

In the use of QRIS in Indonesia by micro business merchants, perceived compatibility, and personal innovativeness, especially related to technology in the digital era, are not enough to be able to attract micro-entrepreneurs to adopt QRIS. Research respondents who are on average over 40 years old need an increase in terms of digital literacy so that they could adapt the use of technology, especially related to digital payments. Factors such as still preferring cash transactions, network constraints, fees, and the length of the transaction for disbursement process are still factors that can reduce the intention to use QRIS.

CONCLUSION

The results of the analysis show that the adoption of QRIS has an impact on the financial performance of micro-entrepreneurs, where financial performance is related to an increase in the number and nominal of transactions, sales turnover, business cash flow and sales records. Perceived ease of use, social influence, perceived usefulness, and perceived cost have the greatest influence on the use of QRIS by micro-entrepreneurs. The factors of perceived compatibility, trust, personal innovativeness, and moderating variable such as length of business and experience of using digital payment do not significantly affect MSMEs in adopting QRIS. Research respondents, whose average age is over 40 years, still think digitalization in payments is not fully necessary. Factors such as registration information, network constraints, transaction disbursement fees, still prefer cash transactions and the length process of disbursement fees can reduce the intention of micro business actors to use QRIS. However, seeing the effect of using QRIS which can improve financial performance, business actors need to increase digital literacy in order to increase business competitiveness and business performance.

In achieving the target of QRIS users, expectedly that policy makers or regulators and QRIS drivers will continue to carry out socialization and digital literacy on an ongoing basis regarding the use of QRIS. Coordinate with associations, industry, and millennial digital generation groups, especially socialization for micro-entrepreneurs aged over 40 years so that the target of QRIS users could be more increase. Socialization can also explain the fees charged to businesses but on the other hand it also provides tricks so that daily income receipts are not reduced due to disbursement of transactions. The problem of network constraints needs to be coordinated with telecommunication companies to be able to provide network expansion and signal strengthening to support micro business actors in making payment transactions digitally.

REFERENCES

- Adella, L., & Rio, M. (2021). Digitalisasi UMKM, literasi keuangan, dan kinerja keuangan: Studi pada masa pandemi COVID-19. *STIE Perbanas Press 2021*, 11, 73–92. <https://doi.org/10.14414/jbb.v11i1.2552>
- Alkhowaiter, W. A. (2020). Digital payment and banking adoption research in gulf countries: A systematic literature review. *International Journal of Information Management*, 53(September 2019), 102102. <https://doi.org/10.1016/j.ijinfomgt.2020.102102>
- Altwaresh, R., & Aloud, M. (2021). Mobile payments from merchants' perspective: An empirical study using the TAM model in Saudi Arabia. *International Journal of Computer Science and Network Security*, 21(8), 317–326.
- APJII. (2020). *Asosiasi penyelenggara jasa internet Indonesia*. <https://www.apjii.or.id/content/utama/39>
- Bank Indonesia. (2022). *Materi Sosialisasi QRIS KPwDN*.
- Chin, W. (1998). The partial least squares approach to structural formula modeling. *Advances in Hospitality and Leisure*, 8 (2) (January 1998), 5.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, 13(3), 319–339. <https://doi.org/10.2307/249008>
- Hair, J., Black, W., Babin, B., & Anderson, R. (2019). *Multivariate Data Analysis* (A. Annabel (ed.); 8th Ed.). Cengage Learning.
- Julyanda, I., & Rejeki, D. (2018). Pengaruh jenjang pendidikan, ukuran usaha, lama usaha dan latar belakang pendidikan atas penggunaan informasi akuntansi terhadap keberhasilan usaha (Studi kasus pada UKM di PIK Pulogadung). *Jurnal Akuntansi Dan Bisnis Krisnadwipayana*, 5(1). <https://doi.org/10.35137/jabk.v5i1.179>
- Kwabena, G.-Y., Qiang, M., Wenyuan, L., Qalati, S. A., & Erusalkina, D. (2019). Effects of the digital payment system on SMEs performance in developing countries; A case of Ghana. *EPRA International Journal of Economic and Business Review*, January 2020, 79–87. <https://doi.org/10.36713/epra2997>
- Kwabena, G. Y., Mei, Q., Ghumro, T. H., Li, W., & Erusalkina, D. (2021). Effects of a technological-organizational-environmental factor on the adoption of the mobile payment system. *Journal of Asian Finance, Economics and Business*, 8(2), 329–338. <https://doi.org/10.13106/jafeb.2021.vol8.no2.0329>
- Masocha, R., & Dzomonda, O. (2018). Adoption of mobile money services and the performance of small and medium enterprises in Zimbabwe. *Academy of Accounting and Financial Studies Journal*, 22(3), 11. <https://www.researchgate.net/publication/325877641>
- Maulana, P. (2022). Kegagalan layanan e-commerce dan perubahan pengalaman pada perilaku beralih konsumen. *Accounting and Business Information Systems Journal*.
- Memba, G., & Gakure, A. (2013). Venture capital and growth: Impact on growth of small and medium enterprises in Kenya context. *Business and Social Sciences International Journal*, 3(6), 32–38.
- Mufarih, M., Jayadi, R., & Sugandi, Y. (2020). Factors influencing customers to use digital banking application in Yogyakarta, Indonesia. *Journal of Asian Finance, Economics and Business*, 7(10), 897–908. <https://doi.org/10.13106/jafeb.2020.vol7.no10.897>
- Najib, M., & Fahma, F. (2020). Investigating the adoption of digital payment system through an extended technology acceptance model: An insight from the Indonesian small and medium enterprises. *International Journal on Advanced Science, Engineering and Information Technology*, 10(4), 1702–1708. <https://doi.org/10.18517/ijaseit.10.4.11616>
- Nuridin, N., Restiti, D., & Amalia, R. (2021). Pengaruh media sosial terhadap pengetahuan tentang quick response code indonesian standard (QRIS). *Jurnal Ilmu Perbankan Dan Keuangan Syariah Vol.*, 3(2).
- Suebtimrat, P., & Vonguai, R. (2021). An investigation of behavioral intention towards QR code payment in Bangkok, Thailand. *Journal of Asian Finance, Economics and Business*, 8(1), 939–950. <https://doi.org/10.13106/jafeb.2021.vol8.no1.939>
- Sulistyaningsih, H., & Hanggraeni, D. (2021). The Impact of technological, organisational, environmental factors on the adoption of QR code Indonesian standard and micro small medium enterprise performance. *Turkish Journal of Computer and Mathematics Education*, 12(14), 5325–5341.
- Talom, F. S. G., & Tengeh, R. K. (2020). The impact of mobile money on the financial performance of the SMEs in Douala, Cameroon. *Sustainability (Switzerland)*, 12(1). <https://doi.org/10.3390/su12010183>
- Wetzels, M., Odekerken-Schröder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly: Management Information Systems*, 33(1), 177–196. <https://doi.org/10.2307/20650284>
- Yan, L. Y., Tan, G. W. H., Loh, X. M., Hew, J. J., & Ooi, K. B. (2021). QR code and mobile payment: The disruptive forces in retail. *Journal of Retailing and Consumer Services*, 58(September 2020), 102300. <https://doi.org/10.1016/j.jretconser.2020.102300>