Jutisi: Jurnal Ilmiah Teknik Informatika dan Sistem Informasi JI. Ahmad Yani, K.M. 33,5 - Kampus STMIK Banjarbaru Loktabat – Banjarbaru (Tlp. 0511 4782881), e-mail: puslit.stmikbjb@gmail.com e-ISSN: 2685-0893 p-ISSN: 2089-3787

### Analysis of the Adoption Level of Qris in West Papua: The Roles of Self-Efficacy, Personal Innovativeness, and Privacy Concern

Irianti Samberi<sup>1\*</sup>, Dedi I. Inan<sup>2</sup>, Rully N. Wurarah<sup>3</sup>, Ratna Juita<sup>4</sup>, Marlinda Sanglise<sup>5</sup> <sup>1,2,4,5</sup>Teknik Informatika, Universitas Papua, Manokwari, Indonesia <sup>3</sup>Ekonomi dan Bisnis, Universitas Papua, Manokwari, Indonesia \*e-mail *Corresponding Author:* irianti.samberi201965047@gmail.com

#### Abstract

The increased use of QRIS, especially in Manokwari, warrants research to understand the adoption intention along with several determining factors. The research aims to understand the influence of Self-Efficacy, Personal Innovativeness, and Privacy Concern on the adoption of QRIS in the West Papua Province. This research utilizes the Technology Acceptance Model (TAM) with perceived usefulness and perceived ease of use, external variables such as Privacy Concern, Personal Innovativeness, Self-Efficacy, and control variables are measured through SEM-PLS. An online questionnaire was distributed to the West Papua community, with 162 respondents who had used QRIS in the past month. The research results indicate that Self-Efficacy and Personal Innovativeness significantly affect perceived usefulness and perceived ease of use. Privacy Concern influences Adoption intention, which subsequently affects perceived usefulness and perceived ease of use is less significant, indicating that the perception of Privacy Concern is not a major factor in the adoption of QRIS in West Papua Province.

Keywords: Mobile Self-Efficacy; Personal Innovativeness; Privacy Concern; QRIS; SEM-PLS

#### Abstrak

Adanya peningkatan penggunaan *QRIS* khususnya di Manokwari sehingga perlu dilakukan penelitian untuk mengetahui niat adopsi dengan beberapa faktor penentu. Tujuan penelitian adalah memahami pengaruh *Self-Efficacy, Personal Innovativeness,* dan *Privacy Concern* terhadap adopsi QRIS di Provinsi Papua Barat. Penelitian ini menggunakan model *Technology Acceptance Model* (TAM) dengan *perceived usefulness* & *perceived ease of use, variabel eksternal* seperti *Privacy Concern, Personal Innovativeness, Self-Efficacy,* dan *kontrol variabel* diukur melalui SEM-PLS. Kuesioner online disebarkan kepada masyarakat Papua Barat, dengan 162 responden yang pernah menggunakan QRIS dalam satu bulan. Hasil penelitian menunjukkan bahwa *Self-Efficacy* dan *Personal Innovativeness* berpengaruh signifikan terhadap *perceived usefulness* dan *perceived ease of use. Privacy Concern* mempengaruhi *Adoption intention,* yang kemudian mempengaruhi *perceived usefulness* dan *perceived ease of use* usefulness dan *perceived ease of use*. Namun, hubungan *Privacy Concern* dengan *perceived usefulness* dan *perceived ease of use* usefulness dan *perceived ease of use* usefulness dan *perceived ease of use*. Namun, hubungan *Privacy Concern* dengan *perceived usefulness* dan *perceived ease of use* kurang signifikan, menunjukkan bahwa persepsi *Privacy Concern* tidak menjadi faktor utama dalam adopsi QRIS di Provinsi Papua Barat.

Kata kunci: Mobile Self-Efficacy; Personal Innovativeness; Privacy Concern; QRIS; SEM-PLS

#### 1. Introduction

Electronic money transactions in Indonesia continue to show an increasing trend from year to year [1]. Bank Indonesia, tasked with setting monetary policies and regulating payment systems, has implemented a system policy through the Quick Response Code Indonesian Standard (QRIS) regulated under Bank Indonesia Regulation No.16/08/PBI/2014 at Bank Indonesia (2014). The QRIS is designed to enable a single code to be used across various payment services [2]. Payment QR Codes with the QRIS standard can receive payments from all digital wallets (e-wallets), such as OVO, GoPay, LinkAja, DANA, and others. The increase in the use of QRIS by the people of West Papua, especially in the city of Manokwari, is closely

related to driving factors that attract people's interest in using QRIS. Privacy concern, or the apprehension of personal information by QRIS users, is one of the factors influencing someone's interest in using QRIS.

Merchants or businesses connected to QRIS are distributed across 12 regions in West Papua. Sorong City emerges as the area with the highest QRIS usage, reaching 11,933 merchants, followed by Manokwari with a total of 10,788 merchants. The number of merchants in other regions is as follows: Fakfak (1,114 merchants), Teluk Bintuni (697 merchants), Raja Ampat (639 merchants), Kaimana (552 merchants), Sorong Selatan (280 merchants), Teluk Wondama (124 merchants), Maybrat (77 merchants), Manokwari Selatan (45 merchants), Tambrauw (28 merchants), and Pegunungan Arfak (18 merchants) at papuabaratnews.co. Data from the West Papua Payment and Settlement Agency (LPP) for the year 2020 indicates that the highest number of QRIS users comes from Sorong City and Manokwari Regency, with 2,563 and 1,824 users, respectively.

The increased adoption of QRIS by the West Papuan community is influenced by various driving factors that attract their interest in adopting QRIS. One such factor is Privacy Concern, which relates to users' apprehensions about the privacy of their personal information in QRIS. Internet Privacy Concern refers to how individuals consider the level of privacy they are willing to provide for the applications or websites they use [3]. In the results of this study, it is expected to assist the community in understanding the adoption of QRIS so that they can be more comfortable when utilizing QRIS for their respective needs. QRIS users who understand these privacy policies may feel concerned about the security of their personal data. However, by agreeing to the applicable terms and conditions, users tend to feel more secure and comfortable regarding their privacy. The surge in QRIS usage, originating from the initiatives of Bank Indonesia, may indicate the emergence of new individuals adopting QRIS. In addition to TAM, the researchers also integrated the TAM model with external variables, namely Privacy concern, Personal innovativeness, and Self-Efficacy, and also added control variables such as age and gender. This occurs due to the awareness that QRIS is an innovative addition to the payment system, aligning with the concept of Personal Innovativeness, which describes an individual's desire to try new technology [4]. According to diffusion theory, innovation adoption is related to personal innovation or the willingness to try a new innovation [5]. From this explanation, it can be concluded that individuals trying QRIS have confidence, and mobile Self-Efficacy (belief or self-efficacy) becomes a key factor in QRIS usage. Mobile Self-Efficacy, reflecting confidence or self-efficacy in using mobile technology, plays a crucial role in various aspects of human life [6].

Based on the formulated problem statement, the objective of this research is to determine the influence of factors such as Privacy Concern, Personal Innovativeness, and Self-Efficacy as determinants of QRIS adoption in West Papua Province.

#### 2. Literature Review

In this section is a collection of research findings from previous researchers who have discussed the Technology Acceptance Model (TAM) study. The results of previous research can be used as references related to this study. Research using TAM has been conducted before.

The results of the study conducted by [7] titled "Acceptance Model of BRISPOT BRI Unit Application with the Technology Acceptance Model (TAM) Approach" show that Perceived Resources significantly and directly influence Perceived Ease of Use. Individual resources (employees' skills and knowledge) and supportive hardware when implementing a new system will provide ease for employees to operate it. Self-efficacy significantly and directly influences Perceived Ease of Use. The higher the respondents' perception of their potential, the higher the perception that the BRISPOT application is easy to use. In this study, the model used is the Technology Acceptance Model (TAM), which encompasses two main constructs: perceived usefulness and perceived ease of use. This model is also integrated with external variables such as Privacy Concern (security concerns), Personal Innovativeness (an individual's willingness to use new information systems), and Mobile Self-Efficacy (confidence or selfefficacy in using mobile technology). Additionally, control variables, namely age and gender, are included.

The research conducted by [8], entitled "analysis of factors influencing the interest of upn veteran east java students in using qris" aims to determine the factors influencing the willingness of students at the Universitas Pembangunan Nasional Veteran East Java to use QRIS payment method using the Technology Acceptance Model (TAM) method. There are four

variables used in the model in this study, namely perceived benefits, perceived ease of use, perceived risk, and perceived interest. An online questionnaire distributed using Google Form was used to collect a total of 167 responses from participants. The data will be analyzed using PLS-SEM, or Partial Least Squares Structural Equation Modeling. The results of the study indicate that perceived benefits have a positive and significant effect on perceived interest, with an original sample value of 0.439 and a p-value of 0.000. Perceived ease of use has a positive but not significant effect on perceived interest, with an original sample value of 0.167 and a p-value of 0.133. Perceived risk has a negative and significant effect on perceived interest, with an original sample value of -0.190 and a p-value of 0.005.

The study entitled 'Analysis of the Use of Quick Response Indonesian Standard (QRIS) on Payment Transaction Convenience Among Street Vendors in South Alun-Alun Yogyakarta,' conducted by [9], aims to determine the difference in income before and after using QRIS as well as the satisfaction of street vendors in using QRIS through Paired T Test and Quantitative Descriptive approaches with the Technology Acceptance Model (TAM) theory and consumer satisfaction. The results of this study show that the average daily income of street vendors before and after using QRIS increased significantly and positively by Rp146,964.206. Furthermore, the satisfaction of street vendors in using QRIS showed an average value of 4.83 with an effectiveness of 96.6%, indicating highly effective satisfaction as the value is above 80%.

In this study, the model used is TAM, employing its two main constructs: perceived usefulness and perceived ease of use, integrated with external variables such as Privacy Concern, Personal Innovativeness, and Self-Efficacy. Additionally, control variables including age and gender were added.



Figure 1. Research Model

Perceived usefulness is the level of an individual's belief (mobile self-efficacy) that the use of technology will enhance the performance of an activity [10]. In other words, this construct involves beliefs in decision-making. Perceived ease of use is defined as the extent to which an individual believes that using a technology does not require excessive effort. If someone believes and is confident that the information system is easy to use, then they are likely to use it. Therefore, this study assumes a relationship between mobile self-efficacy and perceived usefulness and perceived ease of use in QRIS. Thus, the hypotheses proposed are as follows:

# H1: *Mobile self-efficacy* significantly influences individuals' perceptions regarding the *Perceived Usefulness* of QRIS.

# H2: *Mobile self-efficacy* significantly influences individuals' perceptions regarding the *Perceived Ease of Use* of QRIS.

In the context of technology, personal innovativeness refers to the extent to which an individual is willing to try new technology. Individuals with a high level of personal innovativeness tend to be more proactive in seeking the latest information about technology and

strive to adopt innovations earlier than others. Individuals with a high level of innovation generally have positive perceptions and benefits regarding technology. Therefore, individuals with a high level of innovativeness may miss certain benefits if they do not try new technology [11] and according to [12]. Personal innovativeness is also recognized and considered a significant factor influencing the perceived ease of use of a technology. Individuals with a high level of personal innovativeness are more active in seeking information about new things, and they tend to adopt innovations earlier than others, often referred to as early adopters. Therefore, this study assumes that personal innovativeness has a significant positive influence on the perceived ease of use in QRIS.

# H3: *Personal innovativeness* ignificantly influences individuals' perceptions regarding the Perceived Usefulness of QRIS.

# H4: *Personal innovativeness* significantly influences individuals' perceptions regarding the Perceived Ease of Use of QRIS.

Privacy concerns refer to an individual's awareness and perceived risk related to privacy violations [13]. Privacy concerns reflect consumers' level of worry about the potential misuse of data by others [14]. Perceived usefulness, as a belief in utility, is the degree to which an individual believes that the use of technology or a system will enhance their performance at work [15]. Perceived usefulness is defined as the extent to which an individual believes that using a specific information system will improve their performance. From this definition, it is evident that the perception of utility involves a belief in the decision-making process. If someone feels confident that their privacy is secure, they will use the system. Conversely, if someone feels uncertain about the security of their privacy, they will not use it. Therefore, the hypothesis proposed is as follows:

# H5: Privacy Concern significantly influences individuals' perceptions regarding the Perceived usefulness terhadap QRIS.

# H6: *Privacy Concern* significantly influences individuals' perceptions regarding the *Perceived ease of use* terhadap *QRIS*.

Privacy reflects the extent to which an individual has control over their personal information when using QRIS [3]. Privacy factors are one of the elements influencing the intention to use QRIS, where privacy plays a role in restricting others' access to obtain, share, or use information about personal data.

# H7: *privacy Concern* significantly influences individuals' perceptions regarding Adoption Intention toward QRIS.

There are two factors that influence individual decisions to adopt new technology and systems: individuals are willing to use new technology and systems when they perceive them as beneficial, and individuals are willing to adopt new technology and systems when they find them easy to use [15]. The intention to use a website reflects the community's willingness to engage with that website [16]. The intention to use is influenced by perceived usefulness, where customers who find and perceive the usefulness for transactions in their mobile payment systems are more likely to adopt mobile payment services [14].

# H8: *Perceived usefulness* significantly influences individuals' perceptions regarding Adoption Intention toward QRIS.

# H9: *Perceived ease of use* significantly influences individuals' perceptions regarding Adoption Intention toward QRIS.

Age has an influence on an individual's cognitive abilities and thought patterns [17]. As one ages, an individual's cognitive abilities and thought patterns develop, leading to an increase in acquired knowledge. Similarly, gender is a crucial demographic characteristic to discuss as it

has been proven that men and women process information differently [18]. The majority of internet and e-money users tend to be males [19], while online shoppers are generally dominated by females. Therefore, the researcher formulates that:

#### H10: Age significantly influences individuals' perceptions regarding Adoption Intention toward QRIS.

#### H11: Gender significantly influences individuals' perceptions regarding Adoption Intention toward QRIS.

#### 3. Metodologi

The method employed in this research is a quantitative approach. The study was conducted across several regencies and cities in the West Papua Province, specifically Manokwari Regency, Sorong Regency, and Sorong City. Due to constraints in time and cost, the research was carried out online from August to September 2023. The targeted population for this study comprises the QRIS user community in West Papua, with a specific focus on the adoption level of QRIS. In the sampling process, the researcher utilized the Purposive Sampling technique based on defined research criteria. PLS-SEM serves as the sample measurement method in this research, with a requirement of a minimum sample size of ten times the number of indicators indicating a construct. Therefore, the necessary sample size is a minimum of 150. Primary data sources in this study were directly obtained from respondents through questionnaires containing statements crafted by the researcher. The data collection technique was conducted indirectly through the distribution of questionnaires. Descriptive analysis, as a form of research data analysis, is employed to test the generalization of research results based on a single sample [20]. Descriptive analysis is carried out by describing each research variable based on the obtained data, which is then analyzed using SEM-PLS.

#### 4. Results and Discussion

The data obtained from the respondents were collected indirectly through an online questionnaire and distributed via the WhatsApp application. Previously, the questionnaire underwent a piloting or trial process involving 1 lecturer in Information Technology and 5 Information Technology students. Respondent data were successfully collected over a period of 4 (four) weeks, starting from August 20 to September 21, 2023, totaling 240 respondents, with 162 respondent data using QRIS and 78 respondents reported not using QRIS.

Table 1. Respondent Data				
Category	ltem	Jumlah	Percentage (%)	
Gender	Male	56	34,5%	
	Female	106	65,4%	
Age	17- 25	93	57.4%	
	26 - 35	51	31,4%	
	> 36	18	11,1%	
Highest Education	SMA	87	53,7%	
	DIII	6	3,7%	
	S1	67	41,3%	
	S2	2	1,2%	
Occupation	PNS	15	9,2%	
	TNI-POLRI	1	0,6%	
	Pengusaha	8	3,3%	
	Mahasiswa/Pelajar	87	53,7%	
	Swasta	20	12,3%	
	Honorer	22	13,5%	

Category	ltem	Jumlah	Percentage (%)
	lbu Rumah Tangga (IRT)	1	0,6%
	Lainnya	23	14,1%
Income	< 1 Million Rupiah	143	59,6%
	1 – 3 Million Rupiah	72	30%
	4 - 6 Million Rupiah	20	8,3%
	> 6 Million Rupiah	5	2,1%
Have you ever used QRIS?	Yes	162	67,5%
	Never	78	32,5%

The measurement model is a description of the relationships between latent variables (constructs) and their indicators. In this study, three criteria were applied to assess the outer model, namely Convergent Validity, Discriminant Validity, and Composite Reliability [21], as well as according to [22].

The convergent validity test is evaluated through two stages, namely by examining the loading factor (IF) and average variance extracted (AVE). The loading factor values should be greater than 0.7 to be considered valid [23] and according to [24]. The convergent validity criterion for AVE is AVE > 0.50, indicating that more than half (50%) of the indicator variance can be included in the construct score [22].

Reliability testing is used to demonstrate that the indicators used are truly trustworthy and reliable in measuring the construct. Reliability testing is conducted through composite reliability and Cronbach's alpha. A construct is considered reliable if it has high reliability, i.e., > 0.70 [24].

Table 2. Confirmatory Variable Results					
Construct	Statement item	Kode	LF		
Adoption Intention (AI)	I Plan to Use QRIS In the Future	Al1	0.892		
[15]	I Plan to Use QRIS Every Time I	A12	0.937		
CA, CR, AVE = 0.904,	Make A Transaction.	AIZ			
0.940, 0.839	I Plan to Use QRIS Continuously.	Al3	0.919		
	I Feel Concerned About My Privacy		0.914		
	When Using QRIS.	FUI			
Privacy Concern (PC)	I Feel Uncomfortable About the		0.931		
[25] [26]	Security of My Privacy When Using	PC2			
CA, CR, AVE = 0.904,	QRIS				
0.939, 0.838	I Am Worried That My Personal		0.901		
	Information May Be Misused When	PC3			
	Using QRIS.				
Porceived Ease of Lise	I Feel That QRIS Provides		0.887		
	Convenience When Making	PEOU1			
(PEOD)	Transactions.				
[27] CA CR AVE - 0.846	I Find QRIS Easy to Learn.	PEOU2	0.862		
0.907, 0.765	I Don't Need Extra Effort When Using	PEOUS	0.874		
	QRIS For Transactions.				
	When I Heard About QRIS As A New		0.860		
Personal Innovativeness	Payment Technology, I Looked for	PI1			
(PI)	Ways to Try It.				
[27]	I Perceive QRIS As A New		0.915		
CA, CR, AVE = 0.860,	Technology for Conducting	PI2			
0.915, 0.782	I ransactions		0.070		
	I Use QRIS As an Experiment with	PI3	0.876		

Analysis of the Adoption Level of Qris in ...... (Irianti Samberi)

Construct	Statement item	Kode	LF
	New Technology		
Perceived Usefulness (PU) [15] [27] CA, CR, AVE = 0.918, 0.946, 0.803	I Want to Use QRIS Because It	DUA	0.890
	Allows Me to Complete the Transaction Process More Quickly.	PU1	
	I Want to Use QRIS Because It Is More Beneficial for Transactions.	PU2	0.879
	I Want to Use QRIS Because It Makes My Transactions Easier	PU3	0.929
	Using QRIS Makes My Lifestyle During Transactions Easier.	PU4	0.886
Mobile Self-Efficacy (SE)	I Can Use QRIS Without Assistance from Others.	SE1	0.851
[28] CA, CR, AVE =	I Can Complete Transactions Using QRIS.	SE2	0.911
0.863, 0.916, 0.785	I Am Confident in The Usefulness of QRIS For Transactions.	SE3	0.894

In this study, discriminant validity assessment is conducted through the Fornell-Larcker Criterion test by comparing the correlations between variables with the square root of AVE [24]. The measurement model has good discriminant validity if the square root of AVE for each variable has a higher value than the correlations with other variables.

Table 3. Discriminant Validity						
	AI	PC	PEOU	PI	PU	SE
AI	0.916					
PC	-0.196	0.915				
PEOU	0.780	-0.107	0.874			
PI	0.682	-0.094	0.713	0.884		
PU	0.771	-0.097	0.851	0.731	0.896	
SE	0.656	-0.132	0.768	0.665	0.776	0.886

In this study, the inner model can be evaluated by examining the R-Square for dependent constructs, indicated by t-values and path coefficients to assess substantive influence. Variance Inflation Factors (VIF) are used as an indicator of multicollinearity among independent variables. The results of the multicollinearity test show that the VIF value should be < 5, and the tolerance value should be > 0.2. The criteria for the magnitude of the R-Square value are as follows: An R-Square value of 0.75 is considered a strong model; an R-Square value of 0.50 indicates a moderately adequate model, and an R-Square value of 0.25 suggests a weak model [29]. Since the VIF and R-Square values for the constructs meet the criteria, further structural model testing can be carried out, as shown in Table 4 below.

Furthermore, the hypothesis testing stage utilizes a t-table value for a two-tailed test, specifically 1.96, which corresponds to a significance level of 5%, and a p-value with a significance level of 0.05 [23]. In the final model, the hypothesis evaluation presented in Figure 2 reveals that the highest value from the bootstrapping test results is 6.797, indicating the influence of Mobile Self-Efficacy on Perceived Ease of Use. Therefore, it can be inferred that this relationship has a significant impact. On the other hand, the lowest value is 0.078, representing the relationship between Privacy Concern and Perceived Ease of Use. This value is < 1.96, indicating that this relationship does not have a significantly influential impact.

Hypotheses	T Statistics	P Values	Results	
<b>H1:</b> SE $\rightarrow$ PU	6.797	0.000	Accepted	
<b>H2:</b> SE $\rightarrow$ PEOU	7.288	0.000	Accepted	
<b>H3:</b> $PI \rightarrow PU$	4.896	0.000	Accepted	
<b>H4:</b> $PI \rightarrow PEOU$	5.109	0.000	Accepted	
<b>H5:</b> $PC \rightarrow PU$	0.193	0.847	Rejected	
<b>H6:</b> PC $\rightarrow$ PEOU	0.078	0.938	Rejected	
<b>H7:</b> PC $\rightarrow$ Al	2.278	0.023	Accepted	
<b>H8:</b> PU → AI	4.454	0.000	Accepted	
<b>H9:</b> PEOU $\rightarrow$ AI	5.156	0.000	Accepted	

Tabel 4. Structural Model Evaluation



Figure 2. Final Results Model (\*p-value <0.05, \*\*p-value<0.001)

Based on the hypothesis test results, it is known that H1 is accepted, meaning that selfefficacy or belief (Mobile Self-efficacy) has a significant influence on benefits (Perceived usefulness). This is indicated by the T-statistic value exceeding 1.96, which is 6.797, and the pvalue less than 0.05, which is 0.000. It also has a positive effect, as seen in the original sample, which is 0.522 or 5.22%. For H2, it is accepted, meaning that belief (Mobile Self-efficacy) has a significant influence on ease (Perceived ease of use). This is indicated by the T-statistic value exceeding 1.96, which is 7.288, and the p-value less than 0.05, which is 0.000. It also has a positive effect, as seen in the original sample, which is 0.527 or 5.27%.

In the hypothesis testing results, it is observed that H3 is accepted, signifying that innovation (Personal innovativeness) significantly influences benefits (perceived usefulness). This is indicated by a T-statistic value exceeding 1.96, specifically 4.896, and a p-value less than 0.05, namely 0.000. Additionally, it demonstrates a positive effect, as observed in the original sample, amounting to 0.385 or 3.85%. Regarding H4, it is also accepted, indicating that innovation (Personal innovativeness) significantly influences ease (Perceived ease of use). This is supported by a T-statistic value exceeding 1.96, specifically 5.109, and a p-value less than 0.05, namely 0.000. Similarly, it exhibits a positive effect, as seen in the original sample, totaling 0.362 or 3.62%.

The hypothesis testing results reveal that H5 is rejected, indicating that privacy concern does not have an influence on perceived usefulness. This is evident from the T-statistic value, which is less than 1.96, specifically 0.193, and a p-value greater than 0.05, namely 0.847. It also exhibits a negative effect, as seen in the original sample, amounting to 0.008 or 0.8%. Thus, these results indicate that privacy concern does not have a significant and negative impact on perceived usefulness. It can be concluded that respondents disagree that privacy concern can affect the benefits of adopting information technology using QRIS. Subsequently, the hypothesis testing results show that H6 is rejected, signifying that privacy concern does not have an influence on perceived ease of use. This is indicated by the T-statistic value, which is

less than 1.96, specifically 0.078, and a p-value greater than 0.05, namely 0.938. It also has a negative impact, as observed in the original sample, amounting to -0.004 or -0.4%. Therefore, these results indicate that privacy concern does not have a significant and negative influence on perceived ease of use. It can be concluded that respondents disagree that privacy concern can affect the ease of adopting QRIS.

Based on the results of hypothesis testing, it is found that H7 is accepted, indicating that privacy concern significantly influences Adoption Intention. This is demonstrated by a T-statistic value exceeding 1.96, specifically 2.278, and a p-value less than 0.05, namely 0.000. It also has a positive effect, as observed in the original sample, amounting to -0.111 or -11.1%. This result shows that an individual's perceived privacy concern has a significant and negative impact on Adoption Intention. The results of hypothesis testing also reveal that H8 is accepted, signifying that perceived usefulness has a significant influence on Adoption Intention. This is supported by a T-statistic value exceeding 1.96, specifically 5.156, and a p-value less than 0.05, namely 0.000. It also has a positive effect, as seen in the original sample, totaling 0.440 or 4.40%. This indicates that perceived usefulness significantly and positively influences Adoption Intention.

The results of the hypothesis testing indicate that H9 is accepted, suggesting that ease of use (perceived ease of use) significantly influences the intention to use (Perceived ease of use). This is supported by a T-statistic value exceeding 1.96, specifically 5.156, and a p-value less than 0.05, namely 0.000. It also demonstrates a positive effect, as observed in the original sample, totaling 0.440 or 4.40%. Hypotheses H10 and H11 are accepted, with age categories more inclined to accept, namely 17 – 25 years and 26 – 36 years, indicating that age has a significant influence on the intention to use QRIS. This can be observed from the T-statistic values in the age categories 17 – 25 years and 26 – 36 years, which are > 1.96, and the p-value is < 0.05, totaling 6 hypotheses. Meanwhile, in the age category > 36 years, there are 6 hypotheses with T-statistic values > 1.96 and p-value < 0.05. This suggests that age within the categories 17 – 25 years has a significant influence on the intention to adopt QRIS.

This aligns with the research conducted [1] stating that the female gender is more dominant than males, indicating that women are more active in using technology. Therefore, female respondents have the intention to adopt QRIS, while male respondents are less inclined to adopt QRIS.

#### 5. Conclusion

Based on the research background conducted to ensure that the adoption of QRIS in West Papua is influenced by Privacy Concern, Personal Innovativeness, and Mobile Self-Efficacy. This study employs the Technology Acceptance Model (TAM) to analyze and understand the factors influencing the acceptance of information technology systems. The TAM model consists of two main constructs, namely perceived usefulness and perceived ease of use, integrated with external variables such as Privacy Concern, Personal Innovativeness, and Mobile Self-Efficacy. Additionally, control variables such as age and gender are included. The results of this study explain that only two factors influence the adoption of QRIS in the West Papua Province, namely Personal Innovativeness and Mobile Self-Efficacy. Furthermore, there are factors that do not affect the intention to use QRIS in the West Papua Province, namely Privacy Concern.

Mobile Self-Efficacy has a significant influence on perceived usefulness and perceived ease of use in West Papua Province. This indicates that the community perceives the benefits and ease of using QRIS as a non-cash payment service in Indonesia. QRIS provides benefits and convenience that make users more confident in adopting technology, thereby influencing the perceived ease of adopting information technology.

Personal innovativeness also has a significant influence on the perceived usefulness and perceived ease of use in West Papua. The community perceives the benefits and utility of QRIS as a non-cash payment service. Innovation in individuals is reflected in their ability to use QRIS without assistance from others, indicating that QRIS provides benefits and convenience for non-cash payments, as well as offering new and exciting experiences for users.

Privacy concern has a significant influence on Adoption intention in West Papua Province. This indicates that the perceived privacy concerns of the community lead to the belief that information technology is safe to use, thus increasing an individual's interest in using technology. However, Privacy concern has less significant influence on the perceived usefulness and perceived ease of use hypotheses for the people of West Papua Province. This means that an individual's privacy concerns about using QRIS as a non-cash service are not based on perceptions of benefits and usability, so Privacy concern is not significant.

Perceived usefulness and perceived ease of use have a significant influence on adoption intention in West Papua Province. This means that the utility and ease of using QRIS, where an individual only needs one QR Code, as QRIS can process transactions even when using different Payment System Service Providers (PJSP), play a significant role in shaping the interest to adopt QRIS. This is because respondents feel that the service is easy to learn and operate.

Age, as a control variable, significantly influences adoption intention. In this study, three age categories were considered: 17 - 26 years, 26 - 35 years, and >36 years. The research results indicate that the age categories of 17 - 25 years and 26 - 35 years influence the intention to use QRIS, while the >36 years age category does not show an intention to use QRIS. Gender, as another control variable, significantly influences the intention to use QRIS. The research findings reveal that in West Papua Province, females are more dominant in adopting QRIS, while males are less inclined to adopt QRIS.

### References

- H. A. Ningsih, E. Sasmita and B. Sari, "Pengaruh Persepsi Manfaat, Persepsi Kemudahan Penggunaan, dan Persepsi Risiko Terhadap Keputusan Menggunakan Uang Elektronik (QRIS) Pada Mahasiswa," *IKRAITH-EKONOMIKA*, vol. 4, no. 1, pp. 1-9, 2021.
- [2] I. Mulia, "Analisis faktor penerimaan implementasi cashless society dengan menggunakan framework UTAUT," in *Program Studi Manajemen Sistem Informasi, Program Pascasajana Ilmu Komputer*, Jakarta: Universitas Bina Nusantara, 2019.
- [3] W. Hong, F. K. Chan and J. Y. Thong, "Drives and inhibitors of internet privacy concern: a multidimensional development theory perspective," *Journal of Business Ethics*, vol. 1, no. 1, pp. 539-564, 2021.
- [4] Yuesti, I. N. Asuardika, I. N. Sudja and J. J. P. Latupeirissa, "Innovation Strategy Based on Resource-Based Theory Perspective and its Impact on Small and Medium Business Performance," *International Journal of Sustainability, Education and Global Creative Economic (USEKE)*, vol. 1, no. 1, pp. 44-55, 2018.
- [5] I. M. Macedo, "Predicting the acceptance and use of information and communication technology by older adults: An empirical examination of the revised UTAUT 2", *Computers in Human Behavior* vol. 75, no. 3, pp. 935-948, 2017.
- [6] F. Dzaky, "Pengaruh Layanan Informasi dan Efikasi Diri terhadap Minat Melanjutkan Studi ke Perguruan Tingi dengan Prestasi Belajar sebagai Variabel Mediasi pada Siswa SMA Negeri 5 Purwokerto", Doctoral Dissertation, Universitas Jendral Soedirman, 2021.
- [7] M. B. Tua and L. N. Yuliati, "Model Penerimaan Aplikasi BRISPOT BRI Unit Dengan Pendekatan Technology Acceptance Model (TAM) ", Jurnal Aplikasi Bisnis dan Manajemen (JABM), Vol. 8, no. 1, pp. 273-273, 2022.
- [8] A. A. Ertiansyah and D. F. Pamungkas, "Analisis Faktor Pengaruh Minat Mahasiswa UPN Veteran Jawa Timur Dalam Penggunaan Qris, " In Prosiding Semina Nasional Teknologi dan Sistem Informasi, Vol. 3, No. 1, pp. 289-298, 2023.
- [9] C. W. Oktaviani, "Analisis Penggunaan Quick Response Indonesian Standard (QRIS) Terhadap Kemudahan Transaksi Pembayaran Pada Pedagang Kaki Lima Di Alun-alun Selatan Yogyakarta, "PhD Thesis, Universitas Gadjah Mada, 2023.
- [10] H. Aisyah, I. T. Maulana and F. Firdian, "Implementasi teknologi positif dalam meningkatkan kualitas pendidikan.," JCES (Journal of Character Education Society), vol. 3, no. 1, pp. 86-94, 2020.
- [11] Nugroho, Mahendra Adhi and M. A. Fajar, "Effects of technology eadiness towards acceptance of mandatory web-based atendance system," *Computer Science*, vol. 124, no. 2, pp. 319-328, 2017.
- [12] Acheampong, Patrick, Zhiwen, Li, Antwi, Henry Asante, Otoo, Anthony Akai Achempong, Mensah, William Gyasi, Sarpong, and Patrict Boateng, "Hybridizing an extended technology readiness index with technology acceptance model (TAM) to predict e-payment

Jutisi

adoption in Ghana," *American Journal of Multidisiplinary Research,* vol. 5, no. 2, pp. 1-13, 2017.

- [13] X. Tan, L. Qin, Y. Kim and J. Hsu, "Understanding the intention of using mobile social networking apps across cultures.," *International Journal of Human–Computer Interaction*, vol. 34, no. 12, pp. 1183-1193, 2018.
- [14] H. Kim and J. Huh, "Perceived Relevance and Privacy Concern Regarding Online Behavioral Advertising (OBA) and Their Role in Consumer Responses," *Journal of Current Issues and Research in Advertising*, vol. 38, no. 1, pp. 92-105, 2017.
- [15] T. J. Hess and K. A. Basoglu, "Reliability generalization of perceived ease of use, perceived usefulness, and behavioral intentions.," *MIS Quarterly*, vol. 38, no. 1, pp. 1-28, 2014.
- [16] L. Alzahrani, W. Al-Karaghoui and V Weeakkody, "Analyzing the Critical Factors Influencing, Trust in Egovernment Adoption From Citizen' Perspective: A Systematic Review and a Conceptual Framework," *International Busines Review*, vol. 26, no. 1, pp. 164-175, 2017.
- [17] Notoatmodjo, "Metodologi Penelitian Kesehatan," in Rineka Cipta, Jakarta, 2005.
- [18] J. P. Peter and J. C. Olson, "Quantum chemistry in the age of quantum computing.," Chemical rreviews, vol. 119, no. 19, pp. 10856-10915, 2019.
- [19] M. Abrar and R. D Handoyo, "Karakteristik dan Kesenjangan Spasial Pengguna Internet, E-Commerce, serta E-banking di Jawa Timur," *Jurnal Penelitian Komunikasi*, vol. 23, no. 1, pp. 61-76, 2020.
- [20] I. Hasan, "Analisis Data Penelitian dengan Statistik (Edisi kedua)," Bumi Aksara, 2022.
- [21] I. Ghozali, "Aplikasi Analisis Multivariate Dengan Program SPSS," in *Badan Penerbit Universitas Diponegoro*, Semarang, 2011.
- [22] R. Purwaningsih and P. D. Kusuma, "Analisis Faktor-Faktor Yang Mempengaruhi Kinerja Usaha Kecil dan Menengah (UKM) Dengan Metode Structural Equation Modeling (Studi Kasu UKM berbasis industri kreatif kota Semarang)," *In Prosiding Seminar Sains Nasional dan Teknologi*, vol. 1, no. 1, pp. 1-22, 2015.
- [23] J. F. Hair, C. M. Ringle and M. Sarstedt, "PLS-SEM: Indeed a silver bullet"–retrospective observations and recent advances," *Jurnal of Marketing Theory and Practice*, vol. 31, no. 3, pp. 261-275, 2023.
- [24] D. L. Tenggonowati and K. Kulsum, "Analisis Faktor Optimalisasi Golden Age Anak Usia Dini Studi Kasus di Kota Cilegon," *Journal Industrial Services*, vol. 4, no. 1, pp. 1-11, 2018.
- [25] M. Walrafe, C. Waeterloo and K. Ponnet, "Ready or not for contact tracing? Investigating the adoption intention of COVID-19 contact-tracing technology using an extended unified theory of acceptance and use of technology model," *Cyberpsychology, Behavior, and Social Networking*, vol. 24, no. 6, pp. 377-383, 2021.
- [26] Z. Xu, "An empirical study of patiens' privacy concerns for health informatics as a service," *Technological Forecasting and Social Change,* vol. 143, no. 2, pp. 297-306, 2019.
- [27] S. Leon, "Service Mobile apps: a millennial generation perspective," *Industrial Management and Data Systems*, vol. 118, no. 9, pp. 1837-1860, 2018.
- [28] R. W. Tyas and N. Azizah, "Anallisis Kepuasan Pengguna Dompet Digital DANA Melalui Continuance Use Intention Dengan Expectation Confirmation Model," *Jurnal Ilmiah Poi Bisnis*, vol. 1, no. 1, pp. 126-140, 2022.
- [29] A. Juliandi, Structural Equation Model Partial Least Square (SEM-PLS) Dengan SmartPLS, Modul Pelatihan, 2018, pp. 1-4.