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THE QUICK RESPOND INDONESIAN STANDARD (QRIS) PERFORMANCE: EVIDENCE FROM "Z GENERATION" GROUP

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Abstract

This study aims to determine whether self-efficacy, personal attachment, privacy issues, and technological innovations influence the Quick Respond Indonesian Standard usage determination. The study approach is quantitative, using multiple linear regression statistical analysis. The research population of this study is the 100 Z generation in Lhokseumawe City. The data were collected from first-hand sources through a Likert-scale-based survey by sending questionnaires. The result analysis demonstrates that self-efficacy and privacy issues do not influence Gen Z determinants to use Quick Respond Indonesian Standard (QRIS). In contrast, personal attachment and technological innovations positively affect the Z generation to use the QRIS platform.

Keywords: ***self-efficacy, personal attachment, privacy issues, technological innovations, QRIS***

1. INTRODUCTION

Along with the development of the age technology plays an important role in people's daily lives, technological advances bring many advantages and benefits in daily activities for mankind with the help of technological innovation (Ngafifi, 2014). In general, financial technology can be interpreted as technological innovation in financial transaction services (Marginingsih, 2021). According to Bank Indonesia regulation number 19/12/PBI/2017 concerning the application of financial technology, financial technology is the use of technology in the financial system that produces new products, services, technology, and/or business models and can have an impact on monetary stability, financial system stability and/or payment system efficiency, smoothness, security, and reliability (Bi.go.id, 2017). Fintech emerged along with changes in people's lifestyles which are currently dominated by information technology users, with the demands of a busy life (Naution et al., 2021). With Fintech, the problem of buying and selling transactions and making payments can make it easier for the community and with the presence of Fintech, it is very useful to make buying and selling transactions and make payment systems more efficient and cheaper but still effective (Andaiyani et al., 2020). In addition, fintech also provides business benefits, namely being able to save operational costs of a company, operational costs are costs incurred to carry out the company's daily activities. Operating expenses include things like salaries, sales commissions, employee benefits and pension contributions, transportation and travel, depreciation, rent, repairs, and taxes (Hiyanti et al., 2019). With fintech, the circulation of money can increase so that the community's economy is currently more widely used to make transactions, namely QRIS (Sihaloho et al., 2020).

In today's world, technological advances give considerable benefits to humanity with the help of technological invention (Sevima, 2022). Financial technology can be interpreted as technological innovation in financial services. According to Hodge and Gebler-Wolfe (2022),

financial technology is the use of technology in the financial system that produces new products, services, technology, and business models and can impact monetary stability, financial system stability and payment system efficiency, smoothness, security, and reliability. The existence of Fintech reaches people's lifestyle modifications currently dominated by information technology users (Purwanto et al., 2022). Thus, Fintech copes with transaction issues, and advanced payment systems ease the community. Fintech also provides the ability to save a company's operational costs, which are incurred to carry out the company's daily activities, perating expenses include salaries, sales commissions, employee benefits and pension contributions, transportation and travel, depreciation, rent, repairs, and taxes (Kristianti & Tulenan, 2021).

On 17 August 2019, Bank Indonesia launched the first Quick Respond Indonesian Standard (QRIS), a standardization action by Bank Indonesia for all companies that operate financial technology, such as GoPay, OVO, DANA, LinkAja, and others (Indonesia, 2020). A Payment System Service Provider, or PJSP, is a bank that operates Payment System Service Business as stipulated in Bank Indonesia regulations governing payment transaction processing and has obtained QRIS approval (Indonesia, 2020). Since 2022, many Islamic and conventional banks have operated QRIS usage systems; however, some people still need to learn about the QRIS presence (Ayri, 2022). One of Lhoksemawe's entrepreneurs, a cafe that uses QRIS, states that QRIS helps transactions with a cashless system without providing any changes for customer payments and is also not worried about theft. Apart from being a fintech-based payment system, QRIS also provides services related to Islamic finance, one of which is QRIS taking an essential role in zakat payments and donations in other charitable activities, as has happened at Bank BSI, where QRIS transactions came from mosque donations and donations which reached up to 43% compared to the number of transactions in 2020. The volume of QRIS transactions outside charity activities on Indonesian Sharia Bank (BSI) also soared by 50% compared to the transaction volume in September 2020 (Agustia et al., 2022).

According to data on the use of QRIS transactions, which experienced a rapid increase in 34 provinces and 480 cities, regencies/cities throughout Indonesia, reported by CCN Indonesia. Bank Indonesia targets QRIS usage to reach 12 million companies in 2021, doubling from before. Bank Indonesia continues to develop QRIS to improve user convenience and make transactions easier for consumers. There was an increase in total transactions in 2020-2021, accounting for 27.7 billion (Olivia, 2023). The number of QRIS users who have reached the number of QRIS users or with the number of QRIS users shows the increasing interest of consumers using QRIS. Currently, the use of technology is in great demand by the Z generation group. The Z generation was born between 1995 and 2012, often called the I-Generation or the Internet age. Generation Z is usually the latest technological adopter or known to have a technological awareness of innovative power (Erlianti, 2020). Z groups are generally connected to the virtual world and use existing technological sophistication. These children are used to carrying gadgets since childhood, and the virtual world is very significant in the Gen Z personality life story (Firamadhina & Krisnani, 2021). As a result, the most targeted group from technological advancement product creation such as QRIS is Gen Z, who often use QRIS when transacting at cafes, supermarkets and other places of purchase. Thus, the researcher wants to see the factors that influence Gen Z to use QRIS as respondents and objects of this study.

2. LITERATURE REVIEW

The survey by Thomas Wozniak (2017) found that smartphone self-efficacy significantly impacts concerns about the privacy of mobile users' information and personal attachment. Supported by Rahmawati and Nasih (2022), self-efficacy takes part in customers' usability choices, influencing their interest in using Financial Technology. People also believe in participating in peer-to-peer lending transactions through Fintech (Syafitri & Latifah, 2023). In addition, the dependency on self-efficacy influences customers from all generations, including Z groups, to use Internet banking due to Internet network capacity. Based on those reasons, we offer that QRIS-related self-efficacy is a factor that positively influences the behaviour of Gen Z. Apart from that, the attachment to the advancement of technology might cause people to opt for QRIS as a financial technology tool (Saputri, 2020). Hence, attachment is a type that characterizes someone to indicate the individual's future connection behaviours. The attachment concept also represents the connection power between individuals for specific objects (Dollu, 2019). Adolescents' connections with a virtual world through smartphones are taking a significant proportion of their lives. Consequently, adolescents may be especially susceptible to the subtle neurobiological rewards technicians incorporate in applications; thus, Gen Z has never known a world without the internet and as digital dependents (Jumrianti et al., 2022). Technology informs every aspect of their lives, from personal health search and gaming, social media entertainment, box set streaming, global politics monitoring, and climate change activism to financial activities. So, the tendency toward the attachment of technological applications is another factor of QRIS usage.

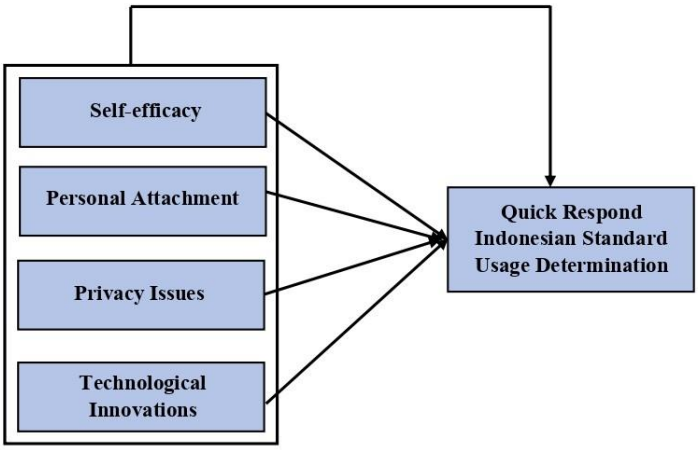
Likewise, sharing private information is another consideration for Internet use, where all Internet platforms approach personal data input for registration and operation. Also, some people currently easily share their personal information, such as uploading photos and posting personal information or using photos for personal purposes without the consent of social media users. In addition, the website collects data from open users. For example, Shopee and other marketplaces also openly collect consumer data by taking data from purchases made by consumers who shopped online, and the average user is unaware and putting trust in the marketplace, which has a security footprint. The security image is a safety and protection standard of personal data established through certain conditions that are met to exercise one's right to share and exchange personal data with the public (Dewi, 2016). When providing data, such information must be guaranteed by the person collecting the data about what the data will use and who can access customer data, as stated in the privacy policy. Another factor that affects the use of smartphone services is the existence of extraordinary technological innovations. Many consumers use the latest technological inventions (Wozniak et al., 2017). In innovation technology, information spreads through social information systems and has the potential to reach users. Technological innovation is generally defined as the psychological properties underlying adopting new ideas, services, and products (Wozniak et al., 2017). In the innovation decision-making process, an individual or decision-making unit goes through five stages: knowledge, persuasion, decision, implementation and confirmation (Wozniak et al., 2017). Innovation is an extensive social and cultural process that occurs when the process contains discoveries, the course in which elements of the new culture spread in society, and how the new culture was received, studied, and ultimately used in the world. Based on several existing theories, four psychological factors have been identified: (1) self-efficacy, (2) personal attachment, (3) privacy issues, and (4) Technological innovations.

3. RESEARCH METHODS

The Data Collection Method

The data were collected from first-hand sources through a Likert-scale-based survey from the Lhokseumawe's Z generation group by sending the questionnaires to 100 participants. The questionnaire used in this study consisted of thirteen questions in four constructs: self-efficacy (three items), personal attachment (three items), technological innovations (three items), privacy issues (three items) and Quick Respond Indonesian Standard usage determination (four items).

Figure 1. Conceptual Framework



Study Approach

The research approach is quantitative, using multiple linear regression statistical analysis. The study is categorized as casual and measures dependent variables through independent variables. The regression equation in this study is to determine how much influence the independent variable to dependent variables. The below mathematical formula used in this study:

$$Y = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + e$$

Information:

Y : Quick Respond Indonesian Standard (QRIS) usage determination
a : Constanta
b1 : The regression coefficient between self-efficacy with QRIS usage determination
b2 : The regression coefficient between personal attachment with QRIS usage determination
b3 : The regression coefficient between Privacy issues with QRIS usage determination
b4 : The regression coefficient between technological innovations with QRIS usage determination
X1 : self-efficacy variable
X2 : personal attachment variable
X3 : Privacy issues variable
X4 : technological innovations variable
e : error disturbances

4. RESULTS AND DISCUSSION

4.1. Results

Validity Test Result

This study demonstrates that all the answers to question items are valid for the rcalculation is > from rtable, and all indicators are valid.

Reliability Test

The result reveals that the Cronbach Alpha value for the independent variable is self-efficacy (X1) at 0.863 or 86.3%, personal attachment (X2) is 0.833 or 83.3%, privacy issues (X3) is 0.929 or 92.9%, technological innovations (X4) is 0.904 or 90.4%. Thus, the QRIS usage determination as a dependent variable has a Cronbach alpha value of 0.852 or 85.2%. Hence, it indicates a reliable result.

Classical Assumption Test

a. Normality Test

Tabel 1. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		100
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	2.16717260
Most Extreme Differences	Absolute	.089
	Positive	.074
	Negative	-.089
Kolmogorov-Smirnov Z		.885
Asymp. Sig. (2-tailed)		.413

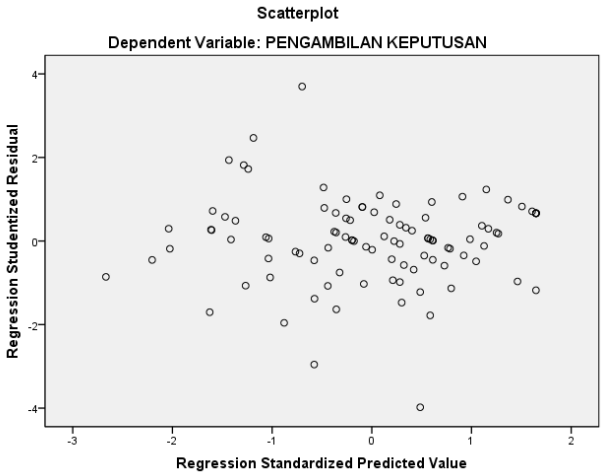
The table illustrates the normality of data distribution using the One-Sample Kolmogorov-Smirnov Test, which reveals a significant level of 0.413>0.05. This value can be seen from the Asymp row. Sig. (2-tailed) in the residual unstandardized column.

b. Multicollinearity Test

The multicollinearity test outcome reveals that the value for all variables is > 0.10. The numbers are 0.346, 0.341, 0.409, and 0.398, respectively. Then, the positive result from the test can be seen from the VIF value of the three variables, that is, < 10. The VIF value for variable X1 is 2.888, the X2 is 2.931, X3 is 2.447, and X4 is 2.514, as a conclusion of no multicollinearity between the variables analysed.

c. Heteroscedasticity Test

Figure 2. Heteroscedasticity Test



The above picture displays no deviation heteroscedasticity classical assumption in the regression because the points on the picture spread randomly. No specific, clear pattern is found, and they scatter above and below the number 0 (zero) on the Y axis.

Results of Data Analysis Method

Table 3. Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.039	1.026		4.913	.000
	Self-efficacy	.097	.123	.090	.788	.433
	personal attachment	.351	.127	.319	2.773	.007
	privacy issues	.055	.134	.043	.412	.681
	Technological Innovations	.397	.111	.384	3.595	.001

Based on Table 3 of regression output, the multiple linear regression depicts as follows:

$$\mathbf{Y = 5{,}039+0.097X1 +0.351X2+ 0.055\ X3 +0.397\ X4 + €}$$

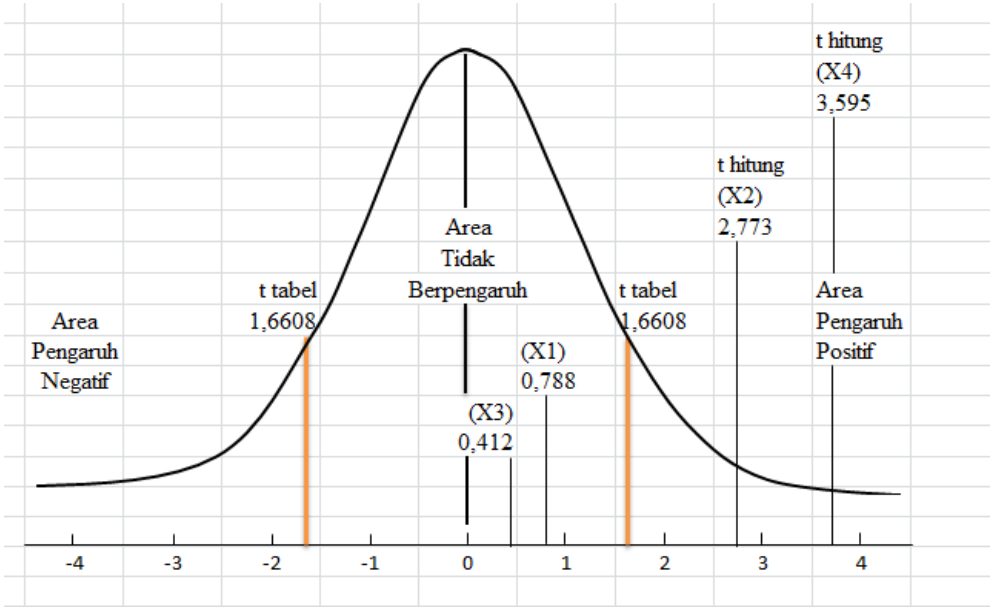
First, the constant value of the multiple linear regression equation above is 5.039. So, if the independent variables of self-efficacy, self-attachment, privacy issues, and technological innovations are valued at 0 (zero), the determination for using QRIS is 5,039. Second, the self-efficacy coefficient value is 0.097, personal attachment is 0.351, privacy issues coefficient value is 0.055, and technological innovations coefficient score is 0.397, meaning that every increase in

every single mentioned variable by 1 unit will increase the QRIS usage determinant as a significant as the amount of each variable's coefficient value. For example, increasing self-efficacy by 1 unit will raise the QRIS usage determinant to 0.097.

Hypothesis Testing

a. Partial Test (t-Test)

Figure 3. t-Test Curve Diagram



A partial t-test shows that self-efficacy and privacy issues do not influence Gen Z determinants to use Quick Respond Indonesian Standard (QRIS). In contrast, personal attachment and technological innovations positively affect the Z generation to use the QRIS platform.

b. Simulant Test (F-Test)

Based on the below table, the Ftable value is 31,454 with a significance value of 0.000. Fcalculate (31.454) > Ftable (2.47) and a significance value of 0.000 < 0.05, thus Ha4 is accepted, meaning that self-efficacy variable, personal attachment, privacy issues, and technological innovations have a positive and significant influence on QRIS usage determination and the hypothesis is accepted. Formula f = (k:n-k) F table = (4:100-4) F table = (4:96) 31,454 >2.47.

Table 4. SimultaneousTest (F-Test)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	615.783	4	153.946	31.454	.000[a]
	Residual	464.967	95	4.894		
	Total	1080.750	99			

c. Correlation and Determination Coefficient

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.755[a]	.570	.552	2.21233

The coefficient determinant (adjusted R square) obtained a value of 0.570, indicating that self-efficacy, personal attachment, privacy issues, and technological innovations influence Gen Z decision-making in using QRIS by 55.2%. Other factors influence the remaining 44.8%.

4. DISCUSSION

The effect of self-efficacy (X1) on QRIS usage determination by Z generation group

Self-efficacy has no influence and only gets negative and significant results on Gen Z's decision to use QRIS. In contrast with a study by Wozniak et al. (2017) located in Switzerland, the self-efficacy of smartphones influences online trading decision-making. Thus, it is likely that Gen Z uses smartphones to search for information, communicate and use various features of smartphones. However, those tendencies might lead the Z generation to use the QRIS platform in the future based on their self-efficacy. Self-efficacy assessments applicate to critical functions and task demands to identify patterns of strengths and limitations with perceived abilities. This enhanced assessment improves predictively and provides guidelines for tailoring the program to one's needs. The value of a psychological theory is judged not only by its explanatory and predictive power but also by its operational power to affect change. Perceived self-efficacy is embedded in broader theories of human agency that determine the sources of self-efficacy beliefs and identify the processes through which they produce diverse effects (Bandura, 1997, 2001). Knowing how to build a sense of effectiveness and how it works provides further guidelines for structuring experiences that enable people to bring about desired personal and social change.

Based on Bank Indonesia (BI) data, the nominal QRIS transaction quadrupled in February 2022 or reached IDR 4.5 trillion. 15.7 million merchants with QR codes support this as one payment method. Not only that, but BI also increased the QRIS transaction limit from the original IDR 5 million to IDR 10 million on March 1, 2022. Thus, although the increase that occurred did not have an impact on the use of QRIS among the young generation, especially the Z generation in Lhokseumawe city, the regression data that researchers did with the results had no influence and was not significant on decision-making by relating the theory of Badura (2001), which is not used to it and has not been too often transacted using QRIS and has not been able to overcome the problems that exist when transacting using QRIS, on the other hand, the lack of merchants who can make QRIS transactions may be the cause of the lack of students who make transactions and are not too able to overcome existing problems.

The Personal Attachment (X2) on Decision-Making of Lhokseumawe's Gen Z in Using QRIS

The result of the personal attachment variable to this smartphone positively and significantly affects the decision to use QRIS in transactions. Around 6 percent of the 3.8 billion smartphone users worldwide are reportedly addicted (Andini, 2022). The behavior then has a

designation known as nomophobia or the fear of someone when separated from their cell phone (Ricky et al., 2021). Mainly people from the young generation not only use smartphones for making friends or entertainment, but they also put their choice for trading online. As a result, the current study shows that online shopping tendency occurs in today's community (Widodo & Qurniawati, 2017).

Compulsive shopping is described as the tendency of consumers to be busy making purchases and then revealed through the repeated purchase process and lack of impulsive control, also increasing along with the higher number of people who experience smartphone addiction. There has been a shift towards online shopping because of the ease, convenience, cost savings, time savings, and prompt delivery compared to conventional shopping (Sari, 2016). The reasons also lead these people of Gen Z to benefit from QRIS easy payment systems and fulfill their compulsive shopping based on their attachment to smartphones.

The effect of privacy issues (X3) on Lhokseumawe's Gen Z's QRIS usage determinant

The results on the variable privacy of mobile user information are negative, showing that many Z generations need to be aware of how the company uses their data and how their data will be used when consumers conquer digital transactions on websites or applications on consumer gadgets. Thus, consumer privacy of mobile user information does not influence the retrieval of Gen Z decisions in Lhokseumawe City. The condition is worldly concerning due to the need for more awareness arising from how data is used and the extent to which companies use personal data to trigger digital crimes such as the sale of personal data. As reported by KOMPAS.com, 5.8 million RedDoorz user data were sold for 2,000 US dollars or around 28.2 million rupiahs in November 2020. The data is sold on the openly accessible Raid Forum website. The leaked RedDoorz user data includes names, e-mails, crypto passwords, profile photos, gender, and mobile phone numbers.

Furthermore, LIPUTAN6 headline news (2022) informed that 422 million user data were hacked throughout 2022 (Wardani, 2023). Alexander Wieneke (2016) had an opinion that was also quoted by (e.g. Smith et al. 2011) and said our outcomes propose that someone, under typical cases, does not base their judgment on a rational value-risk examination. Moreover, privacy threats are ignored, and wearable use appears predominantly value-driven. Everyone under normal circumstances does not rely on individual decisions and does not judge risks rationally; privacy risks are ignored, and use is driven more by benefits (Syafrina & Irwansyah, 2018).

Technological innovation (X4) toward the Z generation's QRIS use decision-making

Technological innovations have a positive influence on decision-making in using the QRIS platform. Through such technological advancement, Gen Z benefits from various innovations in the gadgets' features. Even though this group is keener on communicating than making decisions such as reserving accommodation and transportation, young people use internet features on their smartphones to connect with the advancement of online payment methods that bring easiness (Asyifa, 2020). Fundamentally, financial technology is one of the innovative financial system forms. E-wallets, previously in the form of credit cards, as an example of benefiting people to make payments cashless (Marlina et al., 2021).

As technology develops, e-wallets come in the form of practical smartphone applications. Some examples of current e-wallet products that are familiar are Gopay, Ovo, Dana, and Shopeepay, and the Z generation is the target of these product applications (Indonesia, 2020).

Furthermore, a digital bank that eases people to save, send, and receive money, open savings accounts, and make investments has also launched Quick Respond Indonesian Standard (QRIS) as a payment platform that can be applicated to e-wallet (Indonesia, 2020). These financial creations of technological innovations have been welcomed by the Z generation in Lhokseumawe, who have determined to use QRIS and e-wallet for trading and to consume related expenses in restaurants, cafes, markets, stores, etc.

5. CONCLUSIONS

The Indonesian standard quick response (QRIS) by Bank Indonesia is expected to facilitate public access to transactions. All smartphone users are expected to be able to access and operate QRIS in the payment system. As the primary target, generation Z as a generation that understands the use of technology very well at this time is the focus of technology development. Thus, the researcher focuses on investigating the decision of Generation Z in Lhokseumawe City to make payments via QRIS. Four factors become benchmarks in this study: self-efficacy, personal attachment, technological innovations, privacy issues, and Quick Respond Indonesian Standard usage determination. Results show that self-efficacy and privacy issues do not influence Gen Z determinants to use Quick Respond Indonesian Standard (QRIS). At the same time, personal attachment and technological innovations positively affect the Z generation to use the QRIS platform.

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