

# Effectiveness of Using QRIS In Payment Transactions To Encourage Economic Development Among Students

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## Abstract

*In the era of digitization, emerging information and communication technologies have revolutionized payment systems, including the adoption of financial technologies such as Quick Response code Indonesian standard (QRIS). Qris was established to facilitate efficient, secure and integrated non-cash transactions, thus driving financial inclusion and digital economic growth. This study aims to examine the effect iveness of qris use among students of University of Medan area (UMA). This research used a quantitative descriptive method involving 50 respondents through an on line survey. The results showed that 88% of the majority of students have used QRIS as a means of payment, 82% feel helped in terms of ease of transaction, and 74% feel safe when using it. In addition, 76% QRIS is most often used for the purchase of food and beverage category. The availability of QRIS in merchants is also an import ant factor in transaction decisions, where some students reconsider purchasing if QR is is not available. Thus qris is effective in supporting the adoption of digital paym ents among students, while fostering the development of the digital economy.*

## INTRODUCTION

Ever-increasing information and communication technologies drive payment system transformation significantly, especially within the realm of the digital economy. One of the innovations widely applied in Indonesia is the quick response code standard (QRIS), a QR code standard designed to facilitate non-cash transactions through an integrated QR code scan method. QRIS was issued by Bank Indonesia on August 17, 2019 to accelerate the digitalization of the national payment system. Its advantages in efficiency, security and interoperability have made it a strategic solution for businesses and consumers in the digital age (Departemen Komunikasi Bank Indonesia, 2019).

Qris users continue to grow from year to year. In April 2024, recorded the number of users reached 48,90 million, with 31,86 million registered merchants (7-SNAP-2021-Analisa-Penerimaan-QRIS-Payment-Sebagai-Standar-Alat-Pembayaran-Non-Tunai-Dengan-TAM.Pdf, n.d.). It shows the role of QRIS as the main catalyst in expanding its religious inclusion and supporting the growth of the digital economy, especially in the UMKM sector. In addition, QRIS is also responsible for the improvement of the tourism sector, facilitating foreign wisatawan in transactional, and inducing technol ogical adoption in various informal sectors (Sihaloho et al., 2020).

In academic environment, students of Medan Area University (UMA) play an important role in the adoption of this digital payment technology. As agents of change, students have great potential to support the development of financial technology. The use of qris allows students to make payments non-cash, which not only im proves efficiency but also supports financial inclusion as well as the development of digital-based economy (Ardana et al., 2023).

However, QRIS implementation among students still faces a number of challenges, including low financial literacy and a lack of understanding of the benefits of its use. This affects their decision to make digital transactions. For example, this study shows that some students are not fully aware of the convenience and security offered by QRIS, so there is still a tendency to use cash payment method (Hanifah et al., 2024). Knowledge of financial technology, including QRIS, is an important factor affecting technology adoption. The higher the individual's understanding of technology, the more likely it is to utilize it (Ardana et al., 2023) In the context of UMA students, the understanding of QRIS covers the technical aspects of its use, security, benefits, and efficiency of the system.

The main problem in this study was the lack of a deep understanding of the effectiveness of QRIS among UMA students and their impact on their transaction habits. In fact, QRIS has great potential to support the development of digital economy among students, both as consumers and small businesses. Although QRIS technology has been widely available, its adoption and utilization among students still needs to be examined, especially in terms of comfort, safety, and influence on their purchasing decisions.

Based on these problems and potentials, researchers are interested in conducting research entitled “effectiveness of QRIS use for UMA students for payment transaction in order to encourage economic development in the era of digitization”. The purpose of this research is to know the effectiveness of the use of QRIS for the students of UMA, (2) to know and describe the role of the use of QRIS in promoting the development of the digital economy. With the existence of this study, it is beneficial for the community and students of UMA, namely: (1) users can find out the benefits and objectives of QRIS to accelerate and facilitate in making payment transactions. (2) provide information and develop knowledge related to the use of QRIS among UMA students aimed at payment transactions in supporting the development of the digital economy.

This study will explore and measure the extent to which the use of QRIS for UMA students as payment transactions in order to encourage economic development in the digitization era. Effectiveness is measured from the extent to which certain goals can be achieved with optimal results, while efficiency focuses on the maximum utilization of resources. QRIS, as part of financial technology innovation, offers excellence in time efficiency, cost, and security of digital transactions (Ardana et al., 2023).

Survey conducted on UMA students showed the majority of respondents felt helped by the presence of QRIS, with a high level of confidence in its safety. In addition, this study also noted that many merchants around the campus already provide QRIS-based payment services, which makes it easier for students to make transactions. The results of this study are expected to be a reference for policy makers in the education and economic sector, especially in supporting the development of the digital economy through the integration of payment technology more inclusive and efficient (Hanifah et al., 2024).

## **METHODS**

The method used in this research is descriptive method. The purpose of this study is to describe and analyze the usefulness and function of QRIS (Quick Response Code Indonesian Standard) as a means of payment transaction among students of Medan Area University. This quantitative descriptive method is used to describe the existing situation or phenomenon by collecting data in the form of numbers, words, and images that will be presented in tables and diagrams. This research also uses a quantitative approach because the data analyzed in the form of numerical and quantitative information that will be presented systematically. Development of the concept of data obtained is factual, systematic, and accurate which is closely related to the fact that directly occurs in the reality studied (Ardana et al., 2023).

As for the data collection techniques used for this scrutiny are with surveys or questionnaires used during using Google Form. The method is harnessed to collect data from respondents linked their experiences and views on the use of QRIS as a means of on-campus payment. The data is taken from the created Google Form UTan and has been linked to the University's University field Medan Area students through WhatsApp and Instagram apps. Undergraduates should be given a material that induces critical thinking because they are a change agent (Ardana et al., 2023). This Google Form link is made to make it possible.

The author understands how effective the use of QRIS among students of Medan University the area that is usually used to make payment. By this method, it can be explained that the information in this research is obtained from Google form link that has been shared by researchers and then filled by students of Medan Area University.

In order to facilitate the reader related to the information delivered, this study uses a data analysis approach in the form of a table or a graph that describes a summary of satisfaction, barriers, efficiency, security, as well as factors considered in using QRIS as payment method. The steps carried out in this study are (1) researchers create a Google Form that contains a number of questions that will be used to analyze the data, (2) the Google Form link was distributed by researchers in WhatsApp and Instagram groups, including faculty groups, majors, organizations, groups, And another official group consisting of students of Medan Area University, (3) after the link is distributed in those groups, the next step is the student of Medan Area University who is the respondent fill out the Google Form provided by researchers. Then, the answers they give will be summarized by researchers to be the results of the research, (4) after that, researchers receive answers from respondents who have filled out a number of questions in the Google form link that has been distributed, (5) the last stage performed by researchers was the analysis of data obtained from the spread of Google Form links. This analysis is used for the purpose of this research, namely to assess how effective the use of QRIS among students of Medan Area University for payment transactions. In the presentation of data, researchers present information that is clear and easy to understand. Researchers use numbers or symbols of mathematics in the form of tables and diagrams (Zein et al., 2019) to show how effective the use of QRIS for students of Medan Area University in making payments.

## **RESULTS AND DISCUSSION**

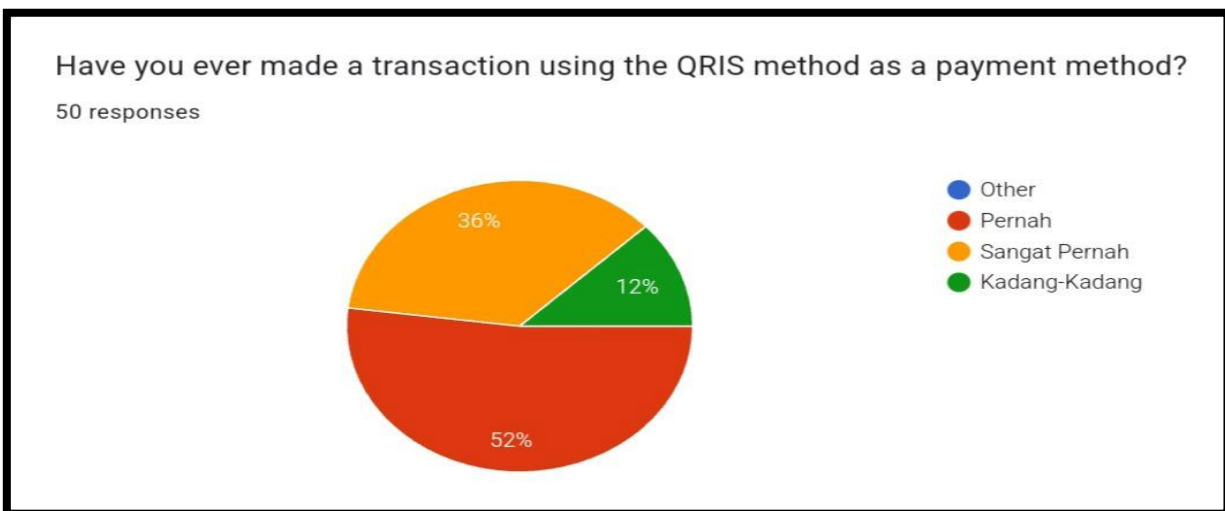
### **Results**

QRIS, known as quick response code standard, is a standard for QR codes that facilitate online payments through digital wallet applications, servers, and mobile banking. The release of QRIS aims to facilitate transactions for the community, and it is supervised by the standard centralized regulation (Dyah Sekarsari et al., 2022). QRIS is a standard payment using QR code designed by Bank Indonesia and Indonesian payment system Association (ASTI) for payment system in Indonesia.

In this study, we as researchers will describe the results and the analysis we have done. In addition, data were collected through questionnaires that have been distributed and designed through Google Form, where the questionnaire contains several questions that need to be answered by respondents. The number of students from Medan Area University as sample in this study reached 50 respondents. Each student has the right to choose from several answers that have been prepared by researchers and there are also open questions that must be answered by the respondents.

### The Effectiveness of Using QRIS as a Payment Tool for UMA Students

The results of the questionnaire are required to measure how effective QRIS is used as a payment method among students of Medan Area University. The following are the findings of the data that have been collected through Google Form that has been distributed to a number of students of Medan Area University from various faculties and armed forces.

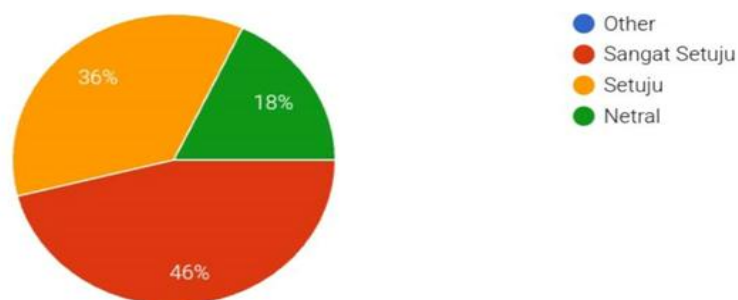


**Picture 1. The use of QRIS as payment transaction**

Based on the first response answer “Have you ever made a transaction using the QRIS method as a payment method?” shows that the average student/I choose the response ever transaction with QRIS method as a means of payment. This is evidenced by 50 students, as many as 6 (12%) students choose “sometimes”, 26 (52%) students choose “ever”, and 18 (36%) students choose “very ever”.

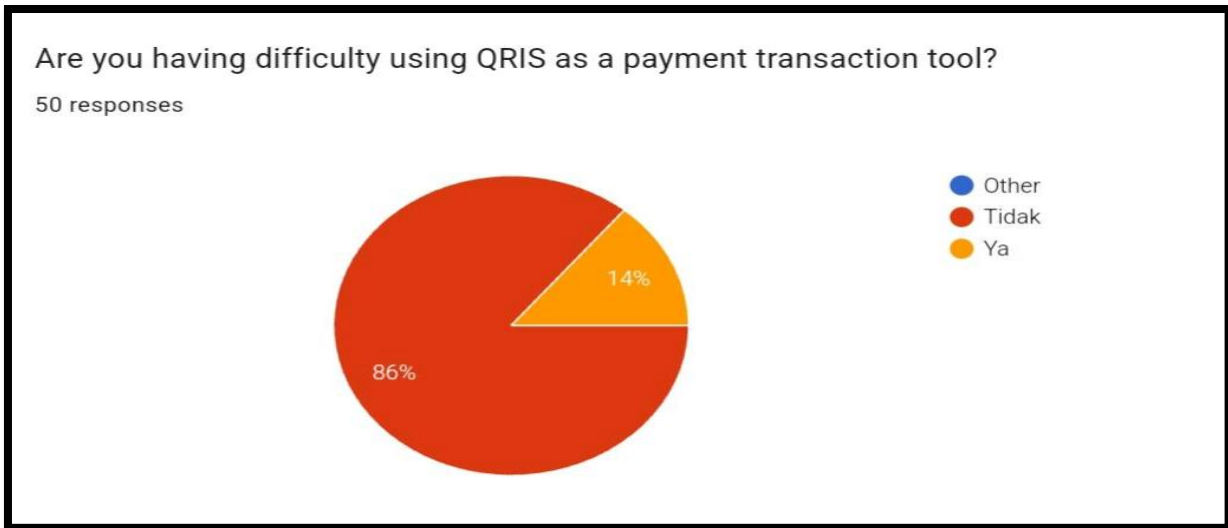
As a UMA student, do you feel helped by having QRIS as a payment tool?

50 responses



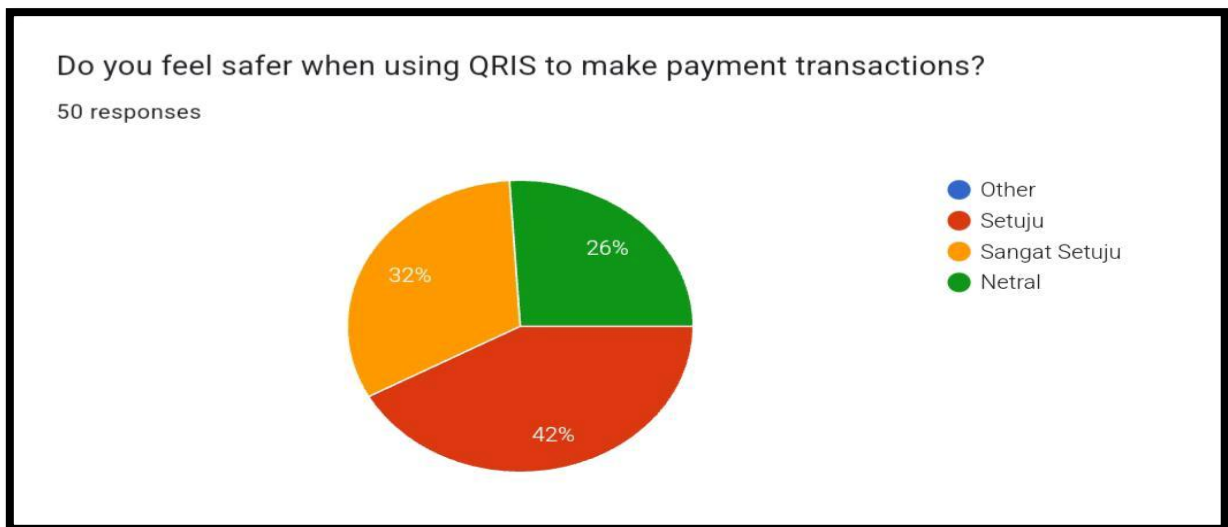
**Picture 2. Benefits of use of QRIS**

Based on the second answer response "As a UMA student, do you feel helped by having QRIS as a payment tool?" it shows that 9 (18%) students respond "neutral", 18 (36%) students respond "agree", and 23 (46%) students respond 'strongly a menable ". This proves that the average student respondents of Medan Area University feel helped by the payment system using QRIS.



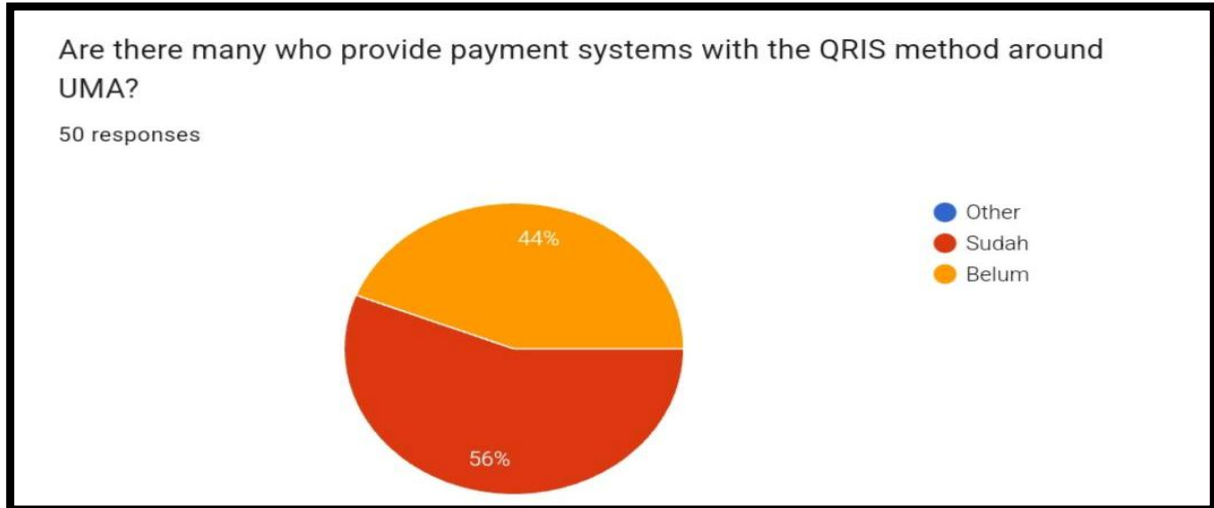
**Picture 3. Difficulties in the use of QRIS**

Based on the third answer response "Are you having difficulty using QRIS as a payment transaction tool?" shows that the average student/I choose the response does not feel difficulty when transacting using QRIS. This is evidenced from 50 student respondents, as many as 7 (14%) students choose "Yes" and 43 (86%) students choose "No".



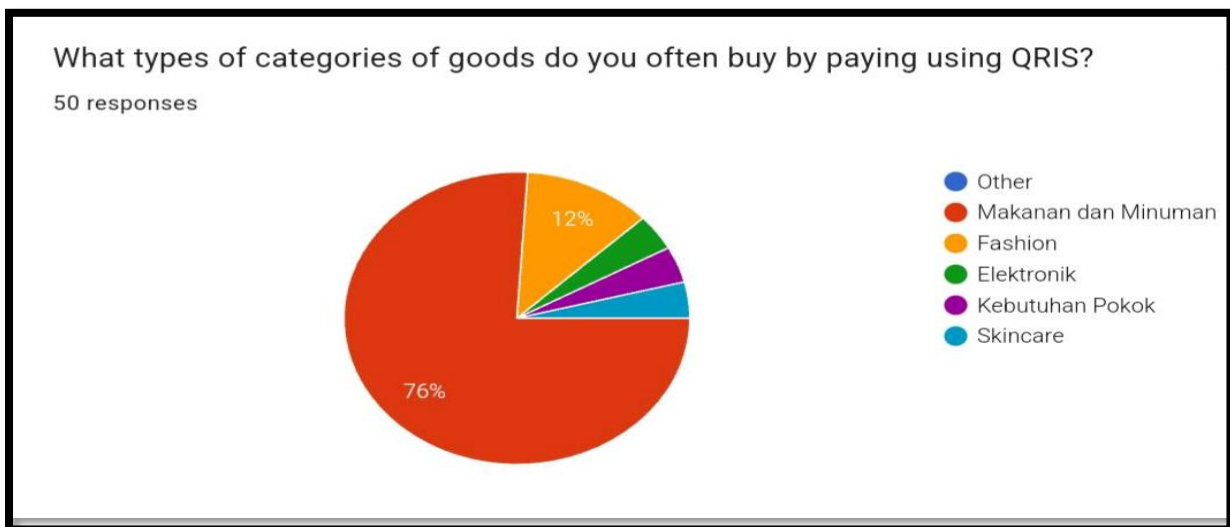
**Picture 4. Security when using QRIS**

Based on the fourth answer response "Do you feel safer when using QRIS to make payment transactions?" shows that 13 (26%) students respond "Neutral", 16 (32%) students respond "Strongly Agreed", and 21 (42%) students respond to "Agree ". This proves that the average respondents of Medan Area University students feel safer when transacting using QRIS.



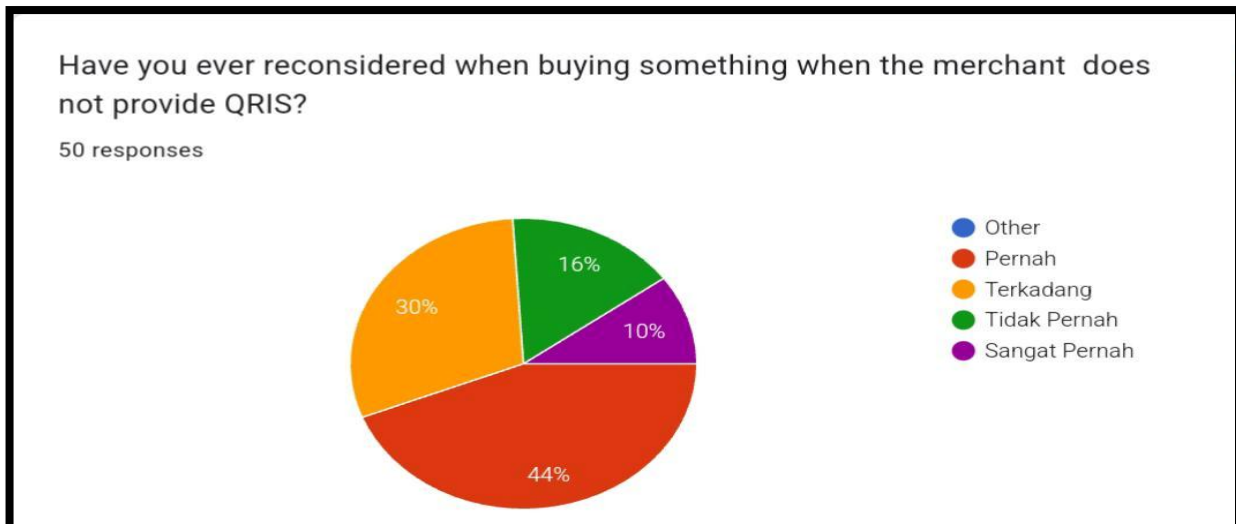
Picture 5. Payment system provision QRIS method around UMA

Based on the fifth answer response "Are there many who provide payment systems with the QRIS method around UMA?" shows that the average student/I choose response has been many provide QRIS around UMA. This is evidenced by 50 respondents, 22 (44%) students choose "Not yet" and 28 (56%) students choose "Already".



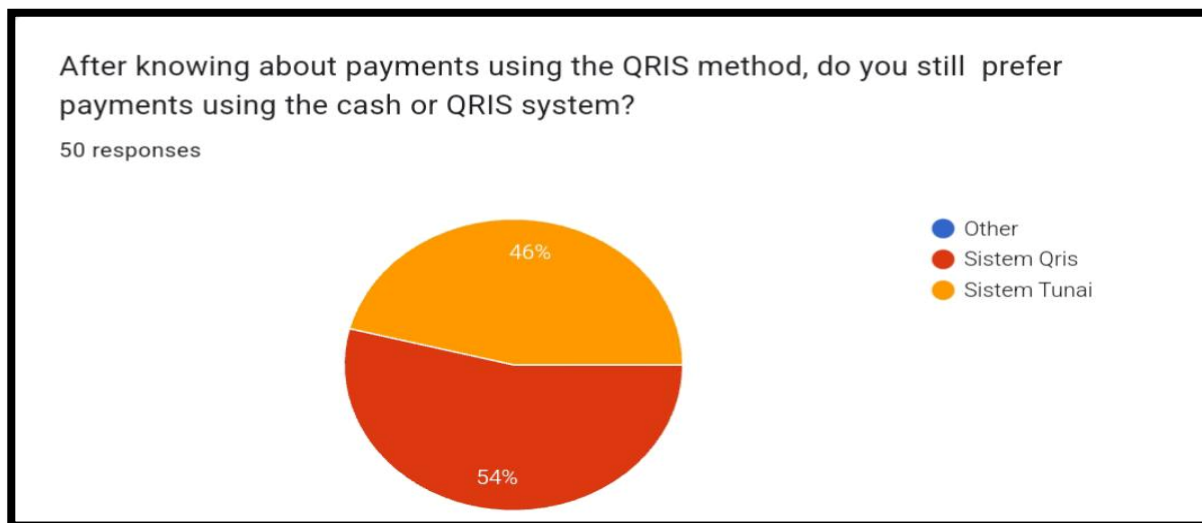
Picture 6. Item category often bought and pay for it using QRIS

Based on the sixth answer response "What types of categories of goods do you often buy by paying using QRIS?" shows that 2 (4%) students choose "Skincare", 2 (4%) students choose "Basic Necessities", 2 (4%) students choose "Electronic", 6 (12%) students choose "Fashion", and 38 (76%) Students choose "Food and Drink". This proves that the majority of respondents use QRIS to pay for the category of "Food and Drink".



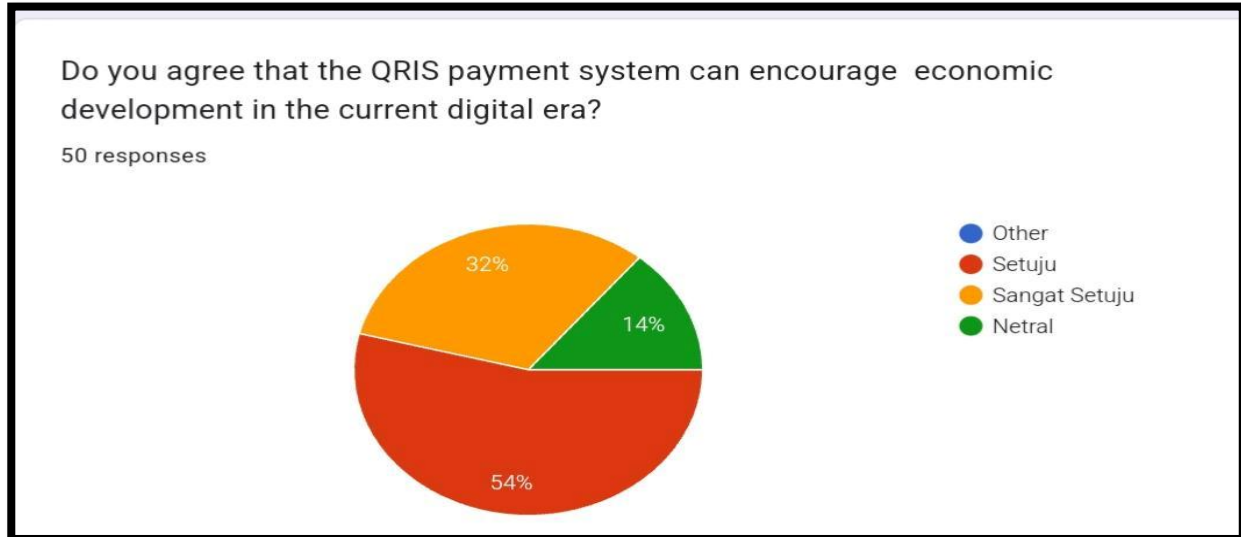
Picture 7. Purchase considerations when merchant does not provide QRIS

Based on the seventh answer response “Have you ever reconsidered when buying something when the merchant does not provide QRIS?” it shows that the average student choose response never reconsider when buying something when merchant does not provide QRIS. It is proven from 50 student respondents, 5 (10%) students choose “Very Ever”, 8 (16%) students choose “Never”, 15 (30%) students choose “Sometimes”, and 22 (44%) students choose "Once".



Picture 8. Loved the cash payment system or QRIS

Based on the eighth answer response “after knowing the payment using qris method, do you still like payment with cash system or qris? ”shows that 23 (46%) students choose "cash system "and 27 (54%) students choose "qris system ". This proves that the majority of respondents choose "qris system".



Picture 9. QRIS can drive the economic development of the digital age

Based on the ninth answer response "Do you agree that the QRIS payment system can encourage economic development in the current digital era?" indicates that the average student/I choose the response agrees that the QRIS can driving the development of digital economy. This is evidenced by 50 student respondents, 7 (14%) students choose "Very Ever", 16 (32%) students choose "Very Agree", and 27 (54%) students choose "Agree".

Table 1. The results of the survey effectiveness of QRIS use.

Questions	Answer Options	Number of Respondents Who Answered	Percentage
Have you ever made a transaction using the QRIS method as a payment tool?	Sometimes	6	12%
	Ever	26	52%
	Very Ever	18	36%
Do you, as a UMA student, feel helped by the presence of QRIS as a payment tool?	Neutral	9	18
	Agree	18	36%
	Strongly Agree	23	46%
Do you feel safer when using QRIS for payment transactions?	Neutral	13	26%
	Agree	21	42%
	Strongly Agree	16	32%
Have you experienced any difficulties in using QRIS as a payment tool?	Yes	7	14%
	No	43	86%
Are there many places around UMA that provide payment systems using the QRIS method?	Already	28	56%
	Not yet	22	44%
What types of goods do you often purchase using QRIS as a payment method?	Skincare	2	4%
	Basic Needs	2	4%
	Electronics	2	4%
	Fashion	6	6%
	Food and Drink	38	76%
Have you ever reconsidered buying something when the merchant does not provide QRIS?	Never	8	16%
	Sometimes	15	30%
	Ever	22	44%

	Very Ever	5	10%
After knowing about QRIS payment methods, do you still prefer cash payments or QRIS?	Cash System	23	46%
	QRIS System	27	54%
Do you agree that the QRIS payment system can drive economic growth in the era of digitalization today?	Neutral	7	14
	Agree	27	54%
	Strongly Agree	16	32%

Source: Primary data processed using excel

Based on the research that we have done with UMA students as respondents, the results show that the majority of UMA students, which is 88%, ever or often use QRIS as a payment method. In addition, around 82%, or the majority, find it helped by the presence of QRIS as a means of digital payment. Furthermore, most of the students do not face difficulties when wearing QRIS, as evidenced by 86% who choose no answer. They also felt more security when trading using QRIS, shown by 42% of students who agreed and 32% who strongly agreed. The high number of students who frequently transact with QRIS method is also supported by many merchants who provide QRIS payment system in UMA, where 56% answer "Already". However, there are also students who feel hesitant to use QRIS payment system, with concern that the use of QRIS can affect financial inclusion. Many of them are not sure whether to use the various features of the service provided by QRIS (Azzahroo & Estiningrum, 2021). Regarding the type of goods that students usually buy using the QRIS method, the most common option is "food and drink", which is chosen by 76% as the goods they most often buy with the payment method.

Furthermore, the many stores around UMA that offer QRIS for payment make transactions easier for students. However, although many stores have adopted QRIS, students still often think again before buying something if the store does not use QRIS. When QRIS are not available, they tend to hesitate-hesitate before making a purchase. This is seen from 44% students who stated "ever" and 10% who answered "very Never" reconsider when trading in stores that do not accept QRIS. It shows that QRIS's presence is a crucial element in purchasing decision making, especially for students who have been familiar with the ease of digital payment. After learning about payment through QRIS, as many as 54% students admitted to prefer this payment method. Most students at UMA also agree that the QRIS payment system can support economic growth in the current digital age, with 54% answering "agree" and 32% stating "Strongly Agree" to the question.

In general, effectiveness can be considered a state that is reflected in the extent to which a person has managed to reach a target, which is judged by the quality, quantity, and time required to achieve it. The result of this research shows that the utilization of QRIS in payment transaction has a positive and significant impact on economic development in digital age. This is evident by the number of UMA students who adopt QRIS as a means of payment, with the number of percentage of users ever and very often reached 88%. In addition, from the perspective of QRIS service quality, respondents revealed that they feel safer when doing transaction with QRIS. This can be seen from the number of respondents who gave 42% "agree" answers and "strongly agree" 32%.

## **The Role of QRIS Use in Encouraging Economic Development in The Digitalization Era**

The effectiveness of using QRIS also contributes to the economic progress in the digital age. The number of QRIS users continues to show a significant increase each year, even exceeding the targets set by Bank Indonesia. QRIS implementation (Quick Response Code Indonesian Standard) has played an important role in accelerating the growth of the digital economy in Indonesia over the past five years (2019-2024). Its wide spread has managed to improve access to financial services, especially for SMEs. Since QRIS was launched on August 17, 2019 by Bank Indonesia, this system has brought a major change in the way Indonesians conduct transactions. QRIS's presence allows all forms of digital payment to be made with just one QR code, which makes life easier for many people, both sellers and buyers.

Based on reports from Bank Indonesia that the number of merchants QRIS in 2020 increased from 2019, which is recorded as of June 2020 amounted to 3,64 million users. While in 2021 also experienced an increase from 2020, which amounted to 6,5 million users as of March 19 (Meisa Hayashi & Baiquni Pratama, 2023). In February 2022, there were 15,7 million QRIS merchant users and 29,6 million users until October 2023 (*BI Jumlah Merchant QRIS Capai 29,6 Juta - ANTARA News*, n.d.). QRIS continued to develop significantly until reaching 194,06% annually in April 2024, with a total user of 48,90 million and merchant number of 31,86 million. Furthermore, in August 2024, QRIS transactions increased by 217,33% compared to the previous year, with users reaching 52,55 million and the number of merchants reached 33,77 million (*QRIS Transaction Surge in 2024 Annual Growth and Impact on Digital Economy*, n.d.).

The rapid growth in the use of QRIS would have a significant impact on the progress of the digital economy in Indonesia. It is not surprising that QRIS is considered a payment system that has changed the way digital transactions in the country. QRIS has an impact positive for the digital economy continues to grow. With the growth of QRIS transactions reaching 194,06% annually in April 2024, the system has helped to increase the

value of digital transactions and expand market access for venture actors, in particular UMKM (Micro-Venture, Small, and Secondary) (*QRIS Transaction Surge in 2024\_ Annual Growth and Impact on Digital Economy*, n.d.). QRIS expands access to the digital payment system thanks to its interoperability advantages, which facilitates the community in using various e-wallet and mobile banking applications without kendala. This significantly supported ruling programs such as the Indonesian proud National Movement (Gernas BBI) and prompted the application of technology in the nonformal sector. QRIS has provided a wide range of profits for its users, ranging from convenience and efficiency, to increasing religious inclusion as well as saving time and costs. With the growing number of communities, both perpetrators of the efforts of both consumers, who switched to digital transactions, QRIS served as a platform to accelerate the digitalization of the economy by pushing the community to more actively use digital payments, which in turn improves financial (fintech) technology utilization and supports adoption of various other digital services.

## CONCLUSION

The results of this study indicate that QRIS is effectively used by UMA students as digital payment transactions. QRIS not only improves comfort and security, but also plays an important role in improving financial inclusion and supporting the acceleration of the digital economy. However, the availability of QRIS in merchants is still a major decisive factor in student transaction decisions, indicating the need for wider infrastructure support. As students increasingly use QRIS, their payment patterns have shifted from cash to digital, reflecting positive changes in the adoption of financial technology, this finding shows that QRIS adoption among students reflects the increasing acceptance of financial technology. Improvement of financial literacy related to the use of QRIS needs to be done through intensive socialization and education so that students better understand the benefits and features available. In addition, the campus is expected to cooperate with merchants to expand QRIS provision around the campus. Further research is also suggested to explore the impact of QRIS adoption on consumption behaviour.

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