Humapities and Social Sciences

ISSN 2615-3076 Online) ISSN 2615-1715 (Print)

SWOT Analysis Quick Response Indonesian Standard (QRIS) As a Digital Payment System (Cashless) Towards Advanced Indonesia

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Abstract

Bank Indonesia together with the Financial Services Authority officially launched the Quick Response Indonesian Standard (QRIS) for the first time at the Bank Indonesia head office on August 17, 2019 and has been effective nationally since January 1, 2020. The SWOT analysis in this study aims to see the identification of problems found from the use of this QRIS digital payment system. IFAS and EFAS calculations are carried out in obtaining the number of points for each SWOT element by determining the coordinates of the SWOT Analysis Graph using a Cartesian Diagram. Based on the results of the research, the conclusion states that the results of Strength (QRIS Strength) are 1289 Points (37.2%), Weakness (QRIS Weaknesses) are 277 Points (8%), Opportunity (QRIS Opportunity) is 1284 points (37.1%) and Threat (QRIS Threat) as much as 610 points (17.6%). The final result of the study proves that the QRIS digital payment system is very feasible to use because the results of the SWOT analysis graph depicting the coordinates (X and Y) are located in the (Strength and Opportunity) section with the acquisition of the coordinates (X, Y) of (1012, 674). This means that Strength QRIS far outperforms 1012 points compared to Weakness QRIS and Opportunity QRIS outperforms 674 points compared to Threat QRIS, thereby proving that the community agrees and supports the use of the Quick Response Indonesian Standard (QRIS).

Keywords

Quick response Indonesian standard (QRIS); bank Indonesia; SWOT

Budapest Institut



I. Introduction

Development is a systematic and continuous effort made to realize something that is aspired. Development is a change towards improvement. Changes towards improvement require the mobilization of all human resources and reason to realize what is aspired. In addition, development is also very dependent on the availability of natural resource wealth. The availability of natural resources is one of the keys to economic growth in an area. (Shah, M. et al. 2020)

The development of information technology today makes many things more practical. One of them can be seen from the way someone makes a payment system in a transaction. Slowly the payment system has begun to shift from cash/cash transactions using paper money to non-cash/cashless transactions using electronic money (e-money), meaning that someone can complete the payment without having to make physical contact.

Bank Indonesia (BI) as the central bank and monetary authority in Indonesia has authority over the non-cash payment system. Bank Indonesia has the role of regulating and maintaining the financial system mechanism so that it remains stable, both cash and noncash. In the cash payment system, Bank Indonesia is responsible for the disbursement and circulation of cash to the public. However, over time as technology develops, the use of cash has more and more problems and weaknesses, so answering and fixing these problems requires further innovation with a more efficient payment system. That way Financial Technology (Fintech) comes with an innovation to make it easier for people to make financial transactions. In Indonesia, the highest Fintech growth is held by the payment sector, where one of the elements is the payment method.

The digital-based non-cash payment method (Cashless) consists of 2 parts including e-money and e-wallet. Although both are legal digital payments that can replace paper money, in terms of physical and system e-money and e-wallet have their own differences. Chip-based e-Money using cards (ATM/debit cards, credit cards) equipped with chips for our ownership that can be used as legal tender, such as Flazz from Bank Central Asia (BCA) and Brizzi from Bank Rakyat Indonesia (BRI) and Tap Cash from Bank Negara Indonesia (BNI). Server-based E-Wallet with a balance system in a database where the nominal balance is the amount of money we have, namely through smartphone applications such as Dana, Ovo, Go-Pay, ShopeePay, AkuLaku.

One form of implementation of technology to the economy is digital money (cashless). From Bank Indonesia report data, there are 48 Payment System Service Providers (PJSP) that have obtained approval for non-cash transactions, including 14 PJSPs for banking and 34 PJSPs for non-banking parties. The non-cash payment systems are ATM/debit cards, credit cards, money orders, checks, bank accounts and electronic money. In the data from Bank Indonesia, in 2019 it was stated that the holders of the payment system trend were occupied by electronic money (cashless) as much as Rp. 95.75 trillion, an increase from the previous year (2018) with a total transaction of Rp. 60.00 trillion[4].

In terms of the global economy, based on data from the Global System for Mobile Communication Association – Intelligence (GSMA- Intelligence), it is known that in January 2019 the number of smartphone subscriptions (smartphone users) in Indonesia reached 355.5 million users with Indonesia's demographic condition being dominated by young people or young people millennial. The strong reasons for young people (Millennials) to choose cashless system transactions are practical and easy to use, safe, lots of promos, profitable discounts, efficient and following technological advances that can reach international payments.

Plus, the Covid-19 pandemic period from 2019 to 2022 has not subsided, so the virtual payment system is increasingly being used by the public to prevent physical contact which can cause the chain of corona virus spread to continue to increase. The supporting factor is the government regulation not to make physical contact (Physical Distancing). This makes all work and activities as much as possible done online (Online). In this way the improvement of the online payment system (Online Transaction) is strongly supported and recommended by the government and related parties.

Due to the increase in the use of non-cash money, on August 17, 2019 it coincided with the 74th Indonesian Independence Day. Bank Indonesia together with the Financial Services Authority (OJK) officially launched the Indonesian Quick Response Standard (QRIS) for the first time at the Bank Indonesia head office and has been effective nationally since January 1, 2020.

Since the inauguration of the Indonesian Quick Response Standard (QRIS) on January 1, 2020, Bank Indonesia has recorded that until July 3, 2020 the use of QRIS increased in several groups including: large merchants reaching 190,706 aka an increase of 47% from the previous year, Merchants up 26% reaching 333,992, Small and Medium Enterprises (SMEs) rose 125% to reach 685,328, Micro, Small and Medium Enterprises

(MSMEs) rose 9% by 2,603,516 and at merchant donations rose 132% to reach 9,288 users.

Quick Response Indonesian Standard (QRIS) is the implementation of the vision of the Indonesian payment system (SPI) 2025 which was launched in May 2019 with the application of the QR Code to the Merchant Presented Mode (MPM) payment model. With QRIS, which has officially become one of the largest e-payments in Indonesia, Bank Indonesia and OJK have encouraged QRIS as a payment system (E-payment) that must be prepared by all Payment System Service Providers (PJSP).

The implementation of QRIS for large to small businesses is expected to make these businesses competitive in the era of globalization with sales areas that are increasingly expanding using an online buying and selling system. For example, Micro, Small and Medium Enterprises have an important role for the Indonesian economy, amounting to 99.99% of the total business actors in Indonesia or as many as 56.54 million units. MSMEs have proven their existence in this country's economy when the 1998 monetary crisis storm hit Indonesia. Only small and medium-sized businesses are able to survive compared to large companies because they do not require large capital or foreign currency loans where when exchange rates fluctuate, large companies have the potential to experience a monetary crisis.

In response to this, the government needs to pay attention to SMEs, especially the Ministry of Cooperatives and SMEs, which can be digitally competitive in the face of changes in this globalization era. The involvement of the government and banks as well as associations / associations is an important aspect for MSMEs to accelerate in adapting the utilization of economic system opportunities in the current digitalization era.

It is hoped that the presence of QRIS will become an opportunity for the community to move forward which is able to cover wider sales even between the archipelago and abroad because of the assistance from this digital-based payment system (Cashless), as in principle made by Bank Indonesia, namely as a fast, easy payment system. , Cheap, Safe and Reliable or abbreviated as CeMuMuAH.

II. Research Method

2.1 Types of research

Quantitative Research is the type of research that will be used in this journal by using the analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT). In essence, quantitative research relies on data in the form of a number of numbers and percentages in describing a research result. In quantitative research, it has special static and detailed characteristics that can be obtained from experiments, surveys, path analysis, regression, correlation and other research results that produce numerical or statistical data to support the results of a study.

In the research approach using quantitative methods with SWOT analysis, it will further explore the digital payment system (Cashless) in the eyes of the public. Will it make the payment system easier or vice versa. Therefore, the purpose of this research is to find out the strengths, weaknesses, opportunities and threats of the payment system which is increasing in Indonesia at this time, especially during the Covid-19 pandemic which requires people to work from home (WFH) as well as trade and marketing online transactions in order to comply with the health protocols recommended by the government.

2.2 The scope of research

- 1.)Object: This research will involve application objects that provide the Quick Response Indonesian Standard (QRIS) feature such as the output applications of Financial Technology (Fintech) and other payment systems that use QR Code scanning in making payments. The following are fintech service applications that have integrated QRIS payments that are often used by the public, including Ovo, Go-Pay, Dana and LinkAja.
- 2.)Research Location: The choice of research location is adjusted to the domicile of the researcher, namely the city of Salatiga. This city is not as big as other big cities, but judging from its position which is squeezed by two big cities, namely Semarang and Solo, this city is quite busy. The city of Salatiga is one of the oldest cities that stood in Indonesia and was dubbed the city "Tolerant in Indonesia" due to the many immigrants of various cultures who live in this city which is often given the title Mini Indonesia. Therefore, quantitative research on QRIS has been quite well carried out in this city by distributing questionnaires to the community, especially the millennial generation and students who are suspected of using QRIS payments more often.
- 3.)Research Variables: Because this study uses a quantitative research method approach, data exploration to support the research hypothesis will be carried out by means of interviews or questionnaires to merchants and QRIS payment users.

2.3 Research Phase

Explanation of Figure 1. The Schematic of the Research Phase is as follows:

- 1.)Problem Identification: In the Problem Identification stage, we will conduct research on the value of a digital payment system (Cashless) using the Indonesian Standard Quick Response (QRIS) or payment via QR-Code, how many people have / have not recognized this cashless payment system. Based on the SWOT analysis, which values will be explored so that the research goal in analyzing SWOT will be clear whether it is true that the existence of the QRIS digital payment system will make it easier for the community and push the Indonesian economy towards a developed country? So this research needs to prepare for problem identification before deepening data and information.
- 2.)Literature Study: This stage focuses more on research and looks for references on research topics from books, internet, journals, news and other sources to support research data.
- 3.)Questionnaire Preparation: Entering this stage, you have started compiling questions through Google Forms which will be used as research data on the benefits obtained by the community in using the QRIS digital payment system. The community is the main consumer of QRIS so that it can be used as a source of information / benchmark for the successful implementation of the Quick Response Indonesian Standard (QRIS) payment system, especially in the province of Central Java.
- 4.) Questionnaire Distribution: Google Forms is one of Google's services that serves to fill out online forms that can be accessed using a gadget and the results will be stored on the Google cloud server. Google Forms is very effective in conducting surveys, questions and answers, attendance / attendance activities, evaluations, filling out forms and many other things that can be used through google forms.

The distribution of this questionnaire is not hampered by distance and time because it can reach people anywhere and anytime via the internet. The distribution of the G-Form questionnaire to the public is distributed through social media and will be filled in by people who have the potential to know and use or have experience in the Quick Response Indonesian Standard (QRIS) digital payment system.

- 5.)Data Collection: Data that has been collected within the targeted period will be compiled and then selected and grouped with the variables.
- 6.)Research Results: After the data is collected as needed, the research results will be packaged using a SWOT analysis and then rated using IFAS (Internal Strategic Factors Analysis Summary) and EFAS (External Strategic Factors Analysis Summary) to get the weight of each question that has been asked. After that, it will be mapped in the X and Y analysis graphs with calculations or data obtained from google forms will be calculated to determine the X and Y axes. So that on the graph it will be clear which way the coordinate mapping of the SWOT character will lean. The graph has 4 lines according to the cardinal chart where East is Strengths, South is Threats, West is Weaknesses and North is Opportunities which form a plus sign line (+) as shown in Figure 2 below.



Figure 2. SWOT Analysis Diagram

The following is an explanation of Figure 2. The SWOT Analysis Diagram above:

- First Quadrant: Aggression is a very profitable situation because Strengths meet Opportunities so that they can maximize strengths against existing opportunities. This can create an aggressive growth strategy (Growth Oriented Strategy).
- Quadrant Two: Diversification is a situation that makes the strategy different from the usual by utilizing internal strengths to fight threats so that it is necessary to diversify strategies or create other strategies than usual to allow for new opportunities.
- Third Quadrant: Turn Around is a situation that gets opportunities but is hampered by internal weaknesses. So what needs to be done is to turn around or reverse the situation on the obstacles earlier by minimizing all internal problems which are weaknesses and then seizing opportunities well.
- Fourth quadrant: Defensiveness is a bad situation where internal weaknesses meet threats so self-defense is necessary (defensive). This defensive strategy is carried out as a defensive strategy while making self-improvements to build better internals so that the threat of foam is overcome.
- 7.)Conclusion: This is the last stage in conducting research. Because this stage will conclude the content of the research as well as the respondent's point of view on the effectiveness and efficiency of using the Quick Response Indonesian Standard (QRIS) as a good payment system and respond to QRIS with the designation given by Bank Indonesia, namely CeMuMuAH (Fast, Easy, Cheap, Safe and Reliable) in encouraging the country's economy towards advanced Indonesia.

III. Result and Discussion

In analyzing the QRIS survey data from the questionnaires that have been carried out, to determine the results of the SWOT analysis, use the IFAS and EFAS tools in determining the weight value of each SWOT element and then calculate it with a Cartesian diagram to determine the number of x and y axes so that this Cartesian diagram will be illustrated in a graph using a SWOT Analysis Graph with the acquisition of the x-axis and y-axis points as a result of drawing conclusions from the SWOT analysis about QRIS which tends to lead to which of the four elements Strength (S), Weakness (W), Opportunity (O) and Threat (T) namely SWOT itself.

The following is the identification to get the weight values from IFAS and EFAS

SWOT Information	Strengths (S)	Weaknesses (W)	Opportunities (O)	Threats (T)			
Question 1.	Weight 5	Weight 5	Weight 5	Weight 5			
Question 2.	Weight 5	Weight 5	Weight 5	Weight 5			
Number of Respondents	132 People						

 Table 1. Number of Questionnaire Respondents and Question Weights for Each SWOT
 Element

In the results of the questionnaire, there were 132 respondents who stated their answers by giving a rating on each statement of strength, weakness, opportunity and weakness with a rating weight value of level 5 as described in table 1 above.

Determination of IFAS, EFAS, Cartesian Diagram and SWOT Analysis Graph as follows:

3.1 IFAS (Internal Strategic Factors Analysis Summary)

Table 2. Calculation of Total Points Based on Respondents Strength Rating (S)	Table 2. Calculation	of Total Points	Based on Resp	ondents Strength	Rating (S)
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Rating	Rating	Rating	Rating	Rating	Rating
	1	2	3	4	5
Question					
1. How much do you like using the	-	-	-	17	115
QRIS payment system?					
2. How easy is it for you to make a	-	-	1	12	119
payment system using QRIS?					
Number of Points	-	-	3	116	1170
(Weight Rating x Number of					
Respondents)					
TOTAL STRENGTH		1	289 Points		

Tuble 5. Calculation of Total Tomas Dusce on Respondents Weakless Rating (
Rating	Rating	Rating	Rating	Rating	Rating
	1	2	3	4	5
Question					
1. From your experience, how often do	128	4	-	-	-
QRIS experience errors/failures in					
transactions?					
2. How long do you think it takes to	123	9	-	-	-
make a payment using QRIS?					
Number of Points	251	26	-	-	-
(Weight Rating x Number of					
Respondents)					
TOTAL WEAKNESS		2	277 Points		

Table 3. Calculation of Total Points Based on Respondents Weakness Rating (W)

In the accumulation of IFAS (Strength and Weakness) points as above, the point value is obtained from the number of respondents for each rating multiplied by the weight value of the rating itself so that Total Points are obtained from the sum of the number of points in the five ratings.

Questions 2 Strengths and 2 Weaknesses can be seen as shown below:



Figure 3. Question from Strengths and Weaknesses

3.2 EFAS (External Strategic Factors Analysis Summary)

	Rating				1
Rating	Rating	Rating	Rating	Rating	Rating
	1	2	3	4	5
Question					
1. How recommended is QRIS for your	-	-	-	15	117
family and friends to use?					
2. In your opinion, how safe is QRIS	-	-	-	21	111
used as a payment system in Indonesia?					
Number of Points	-	-	-	144	1140
(Weight Rating x Number of					
Respondents)					
TOTAL OPPORTUNITY		11	284 Points		

Table 4. Calculation of the Number of Points Based on the Opportunity (O) Respondent

Table 5. Calculation of the Number of Points Based on the Threat Respondent Rating (T)

Rating	Rating	Rating	Rating	Rating	Rating
	1	2	3	4	5
Question					
1. Are there few or many merchants/shops that don't have QRIS in your city?	28	23	5	13	63
2. Seeing the current number of cybercrimes, for you. How dangerous is the transaction using QRIS?	115	14	2	-	1
Number of Points (Weight Rating x Number of Respondents)	143	74	21	52	320
TOTAL THREATS		6	510 Points		

The accumulation of EFAS (Opportunity and Threat) points applies like the accumulation of IFAS, namely by obtaining the point value obtained from the number of respondents for each rating multiplied by the weight value of the rating itself so that Total Points are obtained from the sum of the number of points in the five ratings.

Questions 2 Opportunities and 2 Threats can be seen as shown below:



Figure 4. Question from Opportunities and Threats

3.3 Cartesian chart

Cartesian diagram (Cartesian diagram) is a diagram that has four quadrants with two dividing lines, namely the x-axis as a horizontal line and the y-axis as a vertical line.[15].

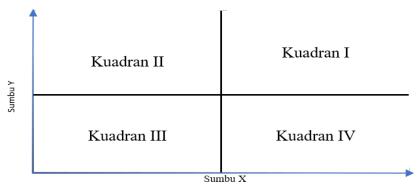


Figure 5. Cartesian QRIS . Diagram

In determining the coordinates, it is obtained from the calculation of the X Axis as IFAS (Strength – Weakness) and the Y Axis as (Opportunity – Threat)[16].

1. IFAS Coordinates

(Point Strength – Point Weakness)

2. EFAS Coordinates

(Point Strength – Point Weakness)

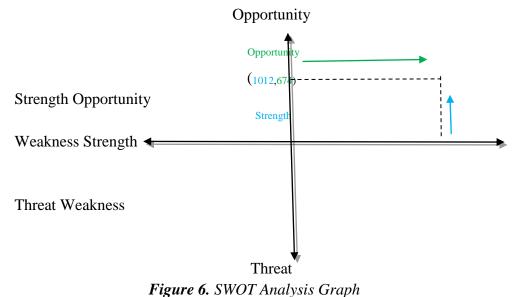
(X,Y)

$$(S - W; O - T)$$

IFAS Coordinates ; EFAS Coordinates (Strength Points – Weakness Points); (Opportunity Points – Threat Points) (1289 – 277) ; (1284 – 610) (1012) ; (674) So, (X,Y) is (1012, 674)

3.4 SWOT Analysis

From the results of the calculation of SWOT points using IFAS and EFAS then calculated using a Cartesian diagram with the acquisition of the X axis and the T axis having coordinates (1012, 674) so that the SWOT Analysis Graph[17]can be described as follows:



IV. Conclusion

Based on the results of the research above, the authors conclude that from 132 QRIS users have given their opinions about QRIS with the results of QRIS Strengths as many as 1289 points (37.2%), QRIS Weaknesses as many as 277 points (8%), QRIS Opportunities as many as 1284 points (37,1%) and the threat of QRIS as much as 610 points (17.6%).

In comparison, the percentage obtained between Strength and Weakness is (Strength 82.3%): (Weakness 17.7%) calculated from the total points Strength divided by the sum of the total points Strength + total points Weakness multiplied by 100%. While the comparison between Opportunity and Weakness is (Opportunity 67.8%): (Threat 32.2%). Thus, of the 132 QRIS users who filled out the questionnaire in this study, they were more inclined to choose QRIS Strengths compared to QRIS Weaknesses with a percentage gain

of 82.3% compared to 17.7%. Likewise, their answers to the QRIS Opportunity were compared to the QRIS Threat with a percentage gain of 67.8% compared to 32.2%.

Judging from the comparison above, the difference in the percentage of Strengths is still far from the percentage of Weaknesses with a difference of 82.3% - 17.7%, which is 64.6%. While the difference in the percentage of Opportunities is not too far from the percentage of Threats with a difference of 67.8% - 32.2% is 35.6%. Why is the difference in the percentage of strengths and weaknesses superior to opportunities and threats? This is due to the high yield of threat results, which means that the threat in QRIS is still relatively high, especially in the Central Java area where the research location and questionnaire were distributed. The questions in the Threat section are (1.) Are there few or many merchants/shops that are not yet available for QRIS in your city? (2.) Seeing the amount of cybercrime today, for you. How dangerous is the transaction using QRIS?.

That way, the problem with the high percentage of QRIS threats taken from the identification of the problem in the threat question itself is that there are still many merchants / shops that have not provided QRIS in the research city and there are still people's doubts about using QRIS due to the many cybercrimes that are happening today.

From the SWOT Analysis Graph, the results of Strength (Strength) of +1012 points and Opportunity of +674 points, which means that the entire questionnaire data in this study illustrates that Quick Response Indonesian Standard (QRIS) is very feasible to be used as a payment system in Indonesia. Indonesia as the positive value obtained as shown in Figure 6 above.

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