The Shifting Of Qr Code-Based Payment Method To Improve The *Competitive Advantage* (Ca) At Bank Jatim Through Tam Model Approach

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Abstract : *The purpose of the this study is how the impact of shifting cash methods to non cash payment by using a QR Code-based mobile banking application to increase and build a competitive advantage at Bank Jatim Situbondo. Subject of this research is Bank Jatim Situbondo. The analysis of this research is using case study. The finding of this research shows that the existence of a QR Code at Bank Jatim known as Jatim Code can increase competitiveness with other competitors, Stores that have Jatim Code merchants are different from stores that don't have Jatim Code or QR Code, the difference lies in the store's readiness to innovate in the payment system.*
Keywords: *QR Code, Competitive Advantage and TAM Model.*

I.   Introduction

In worldwide banking competition, especially in providing the service facilities that is getting competitive, several banks have issued several service innovations which come up with the needs of the community such as E-Banking (Electronic Banking), ATM (Automatic Teller Machine), EDC (Electronic Data Capture) machine, electronic money, and so on. Thus, every bank is continuouing to compete and improve its service quality in order to fulfill customer desires and satisfaction as well as maintain the customer trust to them so that their loyalty to the bank is guaranteed. Information technology refers to a technology which is growing rapidly at this time and its benefits are found in daily life. The real money transacted through Fintech company services is actually in the bank, which is then converted to a digital wallet or what is commonly known as an electronic wallet.

The server-based e-wallet service feature is extended to the use of QR (quick response /QR) code. Quick Response Code (QR Code) is a type of matrix code or two-dimensional barcode developed by Denso Wave as it was used to convey information quickly and receive a fast response as well. In contrast to barcode, which only stores information horizontally, QR codes are capable in both horizontally and vertically. QR code was announced officialy by Bank Indonesia as QR Code Indonesia Standard (QRIS). The policy taken by Bank Indonesia motivated the Fintech payment operators and banks to compete in providing this service feature.

The Situbondo community did not fully understand the function and use of QR Code as a digital payment tool since it was new to them, so special attention and regular continuity in introducing the use of QR Code need to be taken to both customers and the wider community. The factors indicating the difficulty in introducing the QR Code system were triggered by various things, one of them was the low level of education in the surrounding community, inadequate cellphone facilities, the type of community workforce, the connection speed to cellphones and so on.

Budiman and Arza (2013) claimed that in the last 18 years, TAM has became popular model and widely used in various studies regarding the process of adopting new information technology. The simplicity and ability to explain the causal relationships are the main reasons for people in using TAM. TAM provides a general explanation of the things detrmining the acceptance of technology which is expected to be able to clarify the user behavior in a wide range of end users and user populations. Irawan and Emmalia (2018) mentioned QR-Code was used as a medium in promoting the stores; through this code and the help of the internet, a cheap promotional system which was able to cover a very wide area was formed.

II. Literature Review

The Definition of QR Code

Basically, QR Code is developed as a code that allows its content to be translated at high speed (Rouillard, 2008). *QR Code* consists of a strand of square in a bigger square pattern called module. According to the characteristic, QR code can accommodate large amounts of data. Theoretically, as many as 7089 numeric character of maximum data can be stored in it, high density (100 times higher than linear symbol codes) and fast code reading. QR Code is also superior in terms of performance and function (Ariadi, 2011).

QR Code can be divided into some parts with a maximum division of 16 parts. With this linking function, it is not too wide for a single QR Code (Ariadi, 2011). The masking process in QR Code play important role in the arrangement of black and white modules to have a balanced number and this allows it to be used in XOR operation which is applied between the data area and the mask pattern area. There are eight mask patterns in the QR Code which all of them is in a three-bit binary form (Ariadi, 2011).

Competitive Advantage **(CA)**

Amirullah (2015:94). "Competitive advantage is obtained if the company conducted a value creation strategy simultaneously with a strategy implemented by an existing or potential competitor "Meanwhile, according to Danang Sunyoto (2015:1) "A company should have the ability to distinguish the product result in the competition to get competitive advantage." The product should have key characteristics in persuading customer so that it becomes a special product which more superior than the competitor. The company should have the ability to differentiate the product resulted in the competition to get competitive advantage.

Moreover, according to Danang Sunyoto (2015:2) the sources of competitive advantage are as follow: a) resource and b) company capability. From both, only resource and capability that have the criteria of valuable, in-imitable, non-substitutable, exploited by company (VRISE). The components in competitive advantage, according to Hill and Jones in Amiruallah (2015:96) are: a) Superior Efficiency, b) Superior Quality, c) Superior Innovation, dan d) Superior Customer Responsiveness.

Technology Acceptance Model **(TAM)**

Technology Acceptance Model **(TAM)** introduced by Davis in 1989 is an adaptation of t *Theory of Reasoned Action* (TRA) which is specialized to model the user acceptance toward technology. Some research models had been done to analyze and recognize the factors that influenced the acceptance of computer technology usage, such as those recorded in various literatures and references as the research results in the field of information technology like TRA, *Theory of Planed Behaviour* (TPB), and TAM developed by Davis et al in Jogiyanto (2017) that is one of the most used research models in information technology because it is simple and easy to implement.

TAM model is able to explained that the user perception would determine its attitude in accpeting the use of information technology. This model obviously describe that the acceptance of using information technology is influenced by *ease to use, usefulness, attitude toward using, and intention to use*. The four aspects had the highest determinant and validity that had been tested empirically by Chau (1996) in Budiman (2013;5).

Technology Acceptance Model (TAM) that has strong element of behavior assumed that when someone establish a part for an action, they will act without any limitation. Some researchers had replicated Davis's study to give empirical prove toward the relationship between *Perceived Usefulness*, *Perceived Ease to Use* and *System Use* (Furneaux, 2006a) in Nugroho (2008;189).

III. Conceptual Model

This research focused in investigating the level of success on the use of QR Code at Bank Jatim Situbondo in its daily transaction. The research was begun with observational study on the technology development that becomes the trending topic in Indonesia recently namely financial technology or Fintech at financial institution. One of the companies that use this QR Code is Bank Jatim in Situbondo regency. It started since 2019 and had introduced its new product to the society.
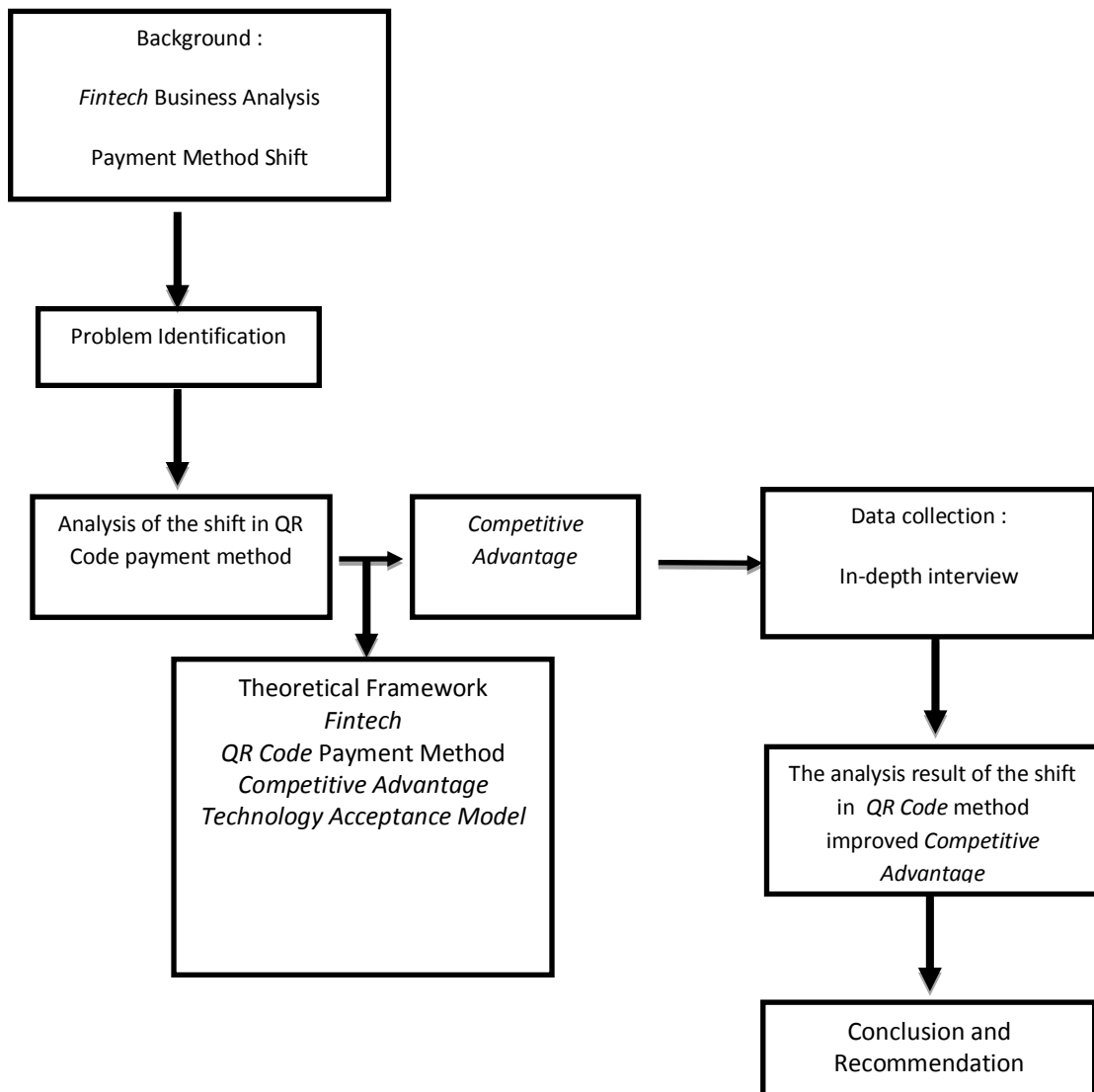
Figure 14. Thinking Process Framework

Based on the Thinking Process Framework, the researcher used the shifting cash payment methods to QR codes as research variables in relation to goal of the company to improve *Competitive Advantage* by using TAM model analysis in measuring to what extent the success level of using the QR Code in the company. Therefore, this research entitled'' "The shift in the QR Code-based payment method to increase the Competitive Advantage (CA) in the Bank Jatim Situbondo".

IV. Research Method

This research employed a qualitative apporoach. Any written or verbal notes in this research were Customer Service and customers of Bank Jatim in the practice of using QR Code to improve Competitive Advantage of Bank Jatim at Situbondo regency. This research was a case study which was intended to explore a depth description of how the shifting QR Code-based payment methods to increase Bank Jatim's Competitive Advantage by using the TAM model approach occurred.

Research Location and Time

This research was conducted at Situbondo regency. The location where the researcher collecting the information was Bank Jatim at Situbondo branch located in Basuki Rahmat street No. 235 Situbondo regency. The location was selected based on the result of the observation by the researcher that this bank has QR Code payment system and the access to the location was strategic. This research was carried out in May 2019 until March 2020.

The primary data in this research were the interview result with the parties of Bank Indonesia, Bank Jatim, and the users of QR Code in Situbondo Office Branch. The secondary data in this research were the books related to the QR Code payment method, the article explaining QRIS by Bank Indonesia, and several other supporting documents that can complement the research.

Data Collection Technique

Some method used as the data collection technique were: a) observation. In this research, the researcher used unstructured observation. There was no observation guidance, so the researcher conduct observation based on the development occurred in the field about the shift of QR Code method to improve Competitive advantage of Bank Jatim with TAM Model, b) interview. The interview was carried out with the informant to obtain and explore as deep as possible the information about the research focus through question and answer in face to face meeting with the customer service, marketing officer as the person in charge of QR Code, and the customer as the user of QR Code using the interview guide. The interview guide used to direct the communication to achieve the objectives. c) documentation study. The data collected by the reseacrher through documentation covered profile, vision and mission organization structure, product variety, and the effectiveness of QR Code usage at Bank Jatim of Situbondo office branch.

In this research, the researcher conducted an interview with 3 informants who helped him to answer the research problem formulations, covering: a) QR Code User Debtor Informant, b) Company Management Informant, c) Bank Indonesia Management Informant.

Data Analysis Technique

Data analysis in qualitative research was done inductively, it means that the data/facts were categorized into the higher level of abstraction which was then synthesized and the theory was also developed if necessary. After collecting the data in the research area through interviews, observations and documents; the non-essential grouping and subtraction were done. After that, the next steps dealt with an analysis and conclusion drawing. In qualitative research, the data analysis took place at the beginning when the data were collected until its completion.

V. Results and Discussion

The Relation of QR Code Application in Improving Competitive Advantage

Based on the results of the analysis, it shows that the existence of a QR Code at Bank Jatim was known as Jatim Code increased the competitiveness with the other competitors, the stores that had East Java Code merchants were uncomparable with the ones who did not. The difference of East Java Code or QR Code was on how ready the store in doing some innovation of the payment system. Competitive Advantage was defined as the ability to innovate in producing products so that they became superior to the competitors. The company must have the ability to differentiate the products produced in the competition to get a competitive advantage (Competitive Advantage).

Thus the relationship between QR Code and Competitive Advantage was reciprocal, by taking the advantage of QR Code and being developed based on the procedure, the Company was getting more advanced according to the number of merchants spread across the community by using this QR Code application; especially in Covid pandemic-19 era, people were demanded to continue to use non-cash applications so that they were able to break the chain of Covid within the community. So it can be concluded that the relationship between QR Code and Competitive Advantage was rvery close as it ran very well and got a progress to the company, especially on the payment system providers.

The Implementation of QR Code application to improve Competitive Advantage

The QR Code payment system was better than the cash payment. It means that the results of interviews done with the informants revealed that according to the ease level on the use of QR Code application, the number of transactions by using QR Code, the number of merchants who became the members of the QR Code and the productivity in using QR code were better than the cash payments for some of the middle class and above in Situbondo Regency. It was also showed on the results of data analysis; the data from the analysis of interviewees, companies and organizers showed positive results with the presence of QR Code which made the users easier to make non-cash transactions without having to carry the cash anywhere, besides that by using QR Code, the Company improved its competitiveness to become a leading company and was in great demand by the community, especially the millennials.

QR Code Merchants in collaboration with Bank Jatim also improved the quality of their non-cash payments whose objective was to become merchants or shops demanded by most people. So it was expected that this QR Code brought a good impression in the community to become an efficient, easy and reliable payment alternative in making transactions.

By utilizing several components, one of them was QR Code, it was able to foster the competitiveness of the company even though Covid-19 pandemic still got them bothered so that some merchants and companies had serious problems, but did not rule out the loyalty given by companies or merchants to community customers, the community was still seen as a benchmark and comparison to other competitors, especially at Situbondo Branch Office of Bank Jatim as an effort to increase Competitive Advantage in the company.

VI. Conclusion

After passing several steps of analysis, the data presentation and conclusion are as follows:

1. Through the shifting of payment method from cash and non-cash to the use of card, QR Code payment method was announced officially by Bank Indonesia, it became beneficial to the users as they were able to enjoy this new application in doing the payment transaction model.
2. The QR code application used by several companies, one of them was Situbondo Branch Office of Bank Jatim was able to increase the competitive advantage of the company itself as well as to the others as the community would choose the new product with many advantages provided to the users if compared to the others which did not provide QR Code-based payment services.
3. Based on the analysis of TAM model used by the researcher, the conclusion drawn was that some people especialy in Situbondo area gave positive responds to QR code application which was relatively new in the community, it was proved by the results of the interview which revealed that they supported and accepted the new application; in other words, TAM model was very helpful for the researcher who wanted to get information related to the attractiveness and level of acceptance of an application within the community.
4. The community in Situbondo district has not used QR Code application fully yet as the information about it was still limited within community, especially to the middle to lower and upper middle class; besides, that the community was not familiar with QR Code-based payment model, they prefered the old method as they found it hard to use QR Code application. Hence, the instability of the internet network, inadequate communication devices, low human resources in some regions and so on became he problems while using QR Code-based payment model.

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