

User's Continuance Intentions of Digital Payment Based on Expectation-Confirmation Method and Trust

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ABSTRACT

Since the Covid-19 pandemic entered Indonesia in 2020, people have started to switch from cash/traditional payments to digital payments with aim to reduce direct physical contact. Digital payment that currently booming is Qris payment method, which offer convenience and speed in transactions. This study aims to look at user continuance intention on using digital payments using the Expectation-Confirmation Model (ECM) approach. In this volatility, uncertainty, complexity, and ambiguity (VUCA) era, this study adapt the concept of trust in technology adoption. Based on the literature study that has been collected, researchers obtain several variables that can influence user intentions to continue using digital payments, including: confirmation, perceived usefulness, satisfaction, information quality, perceived privacy protection and security, trust, and continuance intention.

Keywords: *digital payment, continuance intention, trust, satisfaction, expectation-confirmation model*

INTRODUCTION

The Covid-19 pandemic, which has been going on since the first case was announced on March 2 2020 in Indonesia, has forced people to interact in a limited manner, including conducting banking transactions. On the other hand, users of mobile and internet banking applications have increased rapidly, offset by the large number of marketplace platforms and massive circulation of electronic money to facilitate transactions.

For the type of electronic money itself is divided into two, namely: a). Prepaid Software or often called Digital Cash which is stored in a PC in the form of a hard disk and how to get the money by connecting it to the internet; and b). Prepaid Card, where electronic money whose value is stored in a chip in the form of a card is also called an electronic purchase (Ningrum, 2022). It should also be understood that digital wallets and digital money are part of electronic money. The difference between the two is in their use. Electronic money, which is generally in the form of cards, is used in daily transactions. For example, to pay on toll roads, public transportation tickets, purchases at retail outlets, and payment for tickets to tourist attractions. Meanwhile, digital wallets are used for online and offline shopping, paying electricity tokens, BPJS bills, cable TV bills, payments and so on. Through digital wallets and mobile payments, users can make payments via the Quick Response Code Indonesian Standard (QRis). QRis is a QR code standard used to facilitate digital payment transactions in Indonesia. QRis was initially popular among young people who used a

digital wallet application from an online application, and gradually developed and eventually banks in Indonesia created a QRis payment system that can be directly accessed through their respective mobile banking applications. Al Amin et al (2021), in his research revealed that since the pandemic hit, users have wanted to limit physical contact and make purchases from home, as well as digital payments so as to form an attitude that supports a sustainable intention to use digital payments. There has been a shift in consumer behavior accompanied by an increase in non-cash payments which has had an impact on traditional payment methods, thereby encouraging a reduction in the use of cash in the future (Nisa and Mustaqim, 2021). The use of digital payments is also gaining popularity across borders in various regions, both in big cities and on the edge of town. The development of digital payment systems has created new shopping behaviors for people in these areas (Sumathy and Vipin, 2017). The habit of contactless payment transactions that has been implemented during the pandemic, efficiently supports the survival of various businesses and maintains social economic development in emergency situations (Zhao and Bacao, 2021). Daragmeh et al (2021), in their research suggested that during a pandemic, the adoption of the sustainable use of digital payments can be considered as a protective health behavior effort.

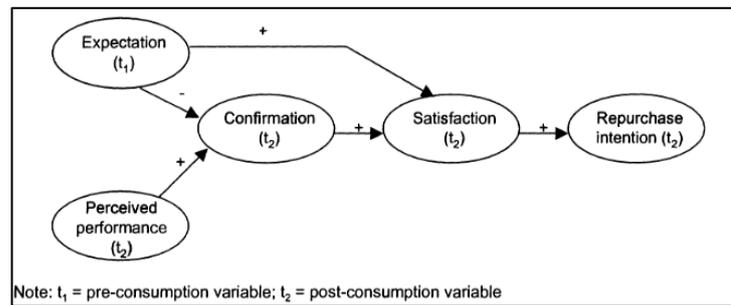
Currently, we live in the era of volatility, uncertainty, complexity, and ambiguity (VUCA). Many researchers have adapted the concept of trust in technology adoption, particularly in mobile payment services (Nelloh et al, 2019). According to Zhou et al (2018), trust is defined as trust in another party who has a high level of ability, integrity and benevolence. Customers who have trust tend to be more loyal. This shows that the company has accommodated most of the customer's wishes so that customers do not hesitate to continue to trust the company (Darmiasih and Setiawan, 2020).

This study intends to analyze customer desires, especially in the city of Padang, to use digital payments through mobile banking on an ongoing basis using the ECM approach, and assess whether trust as a cognitive perspective has an influence on user satisfaction and the use of digital payments on an ongoing basis.

LITERATURE STUDY

Expectation-Confirmatory Model

Expectation-Confirmatory Model (ECM), developed based on Expectation-Confirmation Theory (ECT) where satisfaction is the main predictor of continuance intention followed by confirmation of post-adoption expectations, and it is a widely used model to investigate the continuance intention of consumers using information systems (IS) (Battacherjee, 2001; Jumaan et al, 2020). Battacherjee (2001) in the research of Mamun et al (2020), describes the process in which IT users decide to reuse IT. First, IS users accept the use of SI. Second, after their initial experience, they form instrumental (post-expected) utilitarian perceptions based on their use. Third, users compare their experiences with their initial expectations. Fourth, based on this comparison, they confirmed or did not confirm their expectations and made a decision regarding their level of satisfaction with SI. Fifth and finally, users decide whether to continue using IS based on their perception of its instrumental benefits and their level of satisfaction with their decision to use it. The intention process for the sustainable use of IS can be seen in Figure 1.



**Figure 1. Expectation-Confirmation Theory
Bhattacharjee (2001)**

ECM consists of four variables namely confirmation, perceived benefits, satisfaction and intention to continue. Perceived usefulness and satisfaction represent important individual concepts and have been widely used in information systems studies; while confirmation is the evaluation stage of the decision to adopt technology (Noviyasari et al, 2021). C.C. and Prathap (2020), argue that ECM is a research study, which conceptualizes and tests a theoretical model of the sustainability of an information system that considers the difference between information system acceptance and sustainability behavior. ECM argues that three constructs, namely, expectation confirmation, perceived usefulness and satisfaction precede intention to continue using. However, over time, many previous studies have combined ECM with several other approaches.

Table 1 shows that, in measuring the intention of sustainability in the use of digital payments and mobile banking. To measure user sustainability intentions of IT products, ECM can be combined with several other approaches such as unified theory of acceptance and use of technology (UTAUT), task-technology fit (TTF), technology acceptance model (TAM), health belief model (HBM).), and self-determination theory (SDT). Table 1 shows that, in measuring the intention of sustainability in the use of digital payments and mobile banking. To measure user sustainability intentions from IT products, ECM can be combined with several other approaches such as unified theory of acceptance and use of technology (UTAUT), task-technology fit (TTF), technology acceptance model (TAM), and also included trust as a variable to define the continuance intention.

The insistence on certainty in the use of the banking world is urgently needed in the current VUCA era, so the researcher concludes to include trust to measure the satisfaction of users and how it could possibly affect the intention to use mobile payment continuously.

Trust as cognitive perspective

Trust refers to a cognitive process in which a person's trust in an entity can be derived from his trust in the related entity (Stewart 2003; 2006; Yu et al, 2016). The intention to trust in the Trust-Building Model (TBM) introduced by McKnight et al. (2002), is the consumer's desire to depend on and engage with vendors in a positive relationship in certain situations (Darmiasih and Setiawan, 2020). In e-finance, online settings and the nature of financial services involve uncertainty and risk, thus highlighting the importance of trust (Zhou et al, 2018). Previous studies have shown that trust is an important determinant in examining a customer's repurchase intention. Based on Nelloh et al (2019) and Darmiasih and Setiawan (2020) there are three cognitive-based beliefs that can affect the trust itself, namely information quality, perceived privacy protection, and perceived privacy security.

Hypothesis Development

Confirmation

According to Rahi et al (2022) confirmation has a positive influence to perceived usefulness, where confirmation theory focuses on post-acceptance and post-consumption expectation factors. Another theoretical contribution of this model is ex-post change in expectations where ECT is presented with expectations by perceived usefulness instead of perceived performance. Perceived usefulness tends to decrease, due to the user's expected confirmation that their initial perception appears to be very low. Based on the ECM, the initial expectation-confirmation of m-banking services contributes to subsequent user satisfaction, while on the contrary it causes dissatisfaction and intention to discontinue. (Foroughi and Iranmanesh, 2019). According to Rahi et al (2022) confirmation has a positive influence to perceived usefulness, where confirmation theory focuses on post-acceptance and post-consumption expectation factors. Another theoretical contribution of this model is ex-post change in expectations where ECT is presented with expectations by perceived usefulness instead of perceived performance. Perceived usefulness tends to decrease, due to the user's expected confirmation that their initial perception appears to be very low. Based on the ECM, the initial expectation-confirmation of m-banking services contributes to subsequent user satisfaction, while on the contrary it causes dissatisfaction and intention to discontinue. (Foroughi and Iranmanesh, 2019). CC & Prathap (2020) revealed that confirmation has a fairly strong relationship with satisfaction. Noviyasari et al (2021) have the same opinion regarding the positive effect of confirmation on perceived usefulness, satisfaction, and also trust, even quite strong. This can happen if users get substantial benefits when making payments digitally.

H₁: Confirmation has positive influence to perceived usefulness

H₂: Confirmation has positive influence to satisfaction

H₃: Confirmation has positive influence to trust

Perceived Usefulness

Perceived usefulness defined as the extent of users believe that using the system will improve their job performance and is an early determinant of acceptance of information technology. Perceived usefulness is very important in the use of m-payments because users feel the benefits, and utilization of the system becomes more frequent (Franque et al., 2021). Perceived usefulness can help users perform digital payments effectively and provide economic benefits such as discounts or rewards that make users satisfied (Gupta et al, 2020; Sasongko 20222). According to CC and Prathap (2020), continuance intention is significantly predicted by satisfaction and

perceived usefulness. Mena meanwhile, according to Sasongko et al (2020) perceived usefulness has the highest effect on continuance intention of electronic money applications.

H₄: Perceived usefulness has positive influence to satisfaction

H₅: Perceived usefulness has positive influence to continuance intention

Satisfaction

Satisfaction refers to users' post-choice evaluative and affective responses to their experiences with mobile payments; moreover, satisfaction is captured as positive feelings (satisfaction), indifference, or negative feelings (dissatisfaction) (Oliver, 1993; Yu et al, 2016). If users are dissatisfied with the use of digital payments that they feel, then there is a possibility that the user will not continue using it. Gao et al (2015) in their research found the fact that satisfaction has an influence on continuance intention. Zhou et al (2018) also had the same research results, where satisfaction can affect continuance intention in e-finance users.

H₆: Satisfaction has positive influence to continuance intention

Information Quality

According to Gao et al (2015), information quality reflects information relevance, adequacy, accuracy and timeliness. Consumers expect to use mobile sites to search for product information and buy products or services anytime from anywhere. Poor information quality can spoil the user experience because users need to spend more effort researching the information causing difficulties for them when using the information system. Darmiasih and Setiawan (2020), stated that information quality has a strong relationship to trust. Users will judge that providing information that is accurate, relevant, easy to understand and made in an attractive appearance will increase satisfaction with the information. Franque et al (2021), stated that information quality has a positive influence on satisfaction.

H₇: Information quality has positive influence to satisfaction

H₈: Information quality has positive influence to trust

Perceived Privacy Protection & Security

In this VUCA era, security protection and security have a big enough contribution for users to continue using the information system. User satisfaction and trust will grow if they feel confident that their privacy is protected by the provider. Gao et al (2015) founds that privacy and security significantly affect both trust and satisfaction. In line with that statement, Sasongko et al (2022), revealed that privacy and security have a relationship to them.

H₉: Perceived privacy protection and security has positive influence to satisfaction

H₁₀: Perceived privacy protection and security has positive influence to trust

Trust

Gao et al (2015) stated that with a high level of trust, users may choose to continue use e-finance platforms even if they face dissatisfaction in the short term, because an unsatisfactory transaction experience is offset by a high level of trust. In line with that, many researchers have found that trust has a strong relationship with continuance intention (Nelloh et al 2019; Darmiasih & Setiawan, 2020; Noviyasari et al, 2021; Sasongko et al, 2022)

H₁₁: Trust has positive influence to continuance intention

Research Framework

Based on the hypotheses that have been put forward, the proposed research framework is drawn in Picture 2.

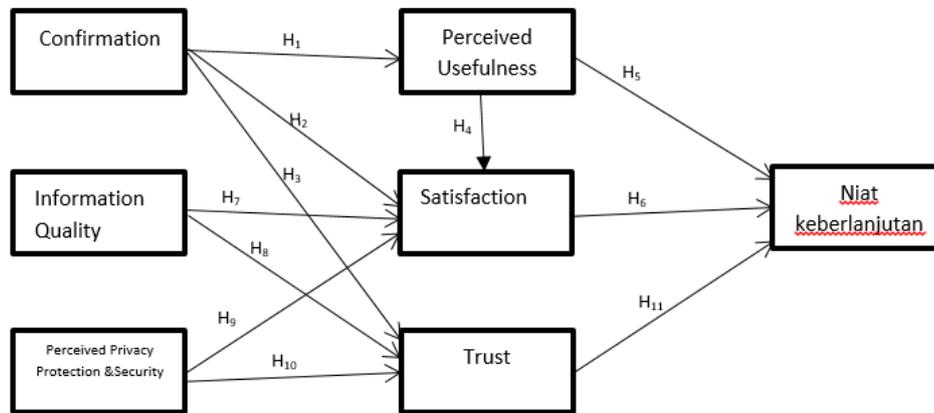


Figure 2. Proposed Research Framework

RESEARCH METHODOLOGY

There are many ways in to do research. Data collection in this research will use interviews, questionnaire, and also observations. This study employed quantitative surveys with structured questionnaire to test the theory and acquire new knowledge by utilizing the statistical methods to validate the results.

Research Design

The research was conducted using a categorical survey with a structured questionnaire. Surveys are defined as a primary data collection method based on communication with a representative sample of individuals (Zikmund, 2003). Primary data is collected and compiled specifically for the research being carried out. In addition, this study is a cross-sectional study in which data from various segments of the population are collected at one point in time.

Population & sample size

The population of this study is people who use digital payment QRis as transactional method in Padang city, possibly all over Wes Sumatera Province. According to Sekaran and Bougie (2010), sample sizes between 30 and 500 could be effective depending on the type of sampling design used and the research question investigated.

Operational Variables

In this study the measurement scale uses a Likert scale. The Likert scale, based on Sekaran and Bougie (2010), is designed to test how strongly subjects agree or disagree with statements on a five-point scale. Responses to a number of items tapping a particular concept or variable can be analyzed item by item, but it is possible to calculate a total or sum score for each respondent by adding up all the items.

To prevent a worse scenario and biased results, the researcher believes that the “neutral” option in the questionnaire should be omitted. Researchers will use 10 starting scores and strongly disagree to strongly agree, which is depicted in Figure 3.

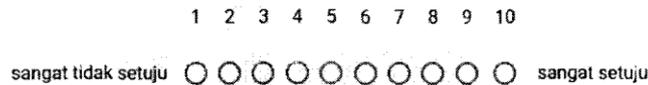


Figure 3. Likert Scale

On this study, questionnaire design has several sections. Section 1 is comprises of six question s on the respondent's personal information. Section 2 comprises about respondent's experience about digital payment, and the next section is question that is related to the variables that already determined. The variables are consist of independent variable, intervening variable, and dependent variable.

- Independent variables: Confirmation, Information Quality, and Perceived Privacy Protection & Security.
- Intervening variables: Perceived Usefulness, Satisfaction, and Trust.
- Dependent variable: Continuance Intention.

CONCLUSION

The aims of this study are to see how digital payment users intend to continue using it continuously through the Expectation-Confirmation Method approach and trust analysis as a cognitive perspective from users of digital payment services. From what has been described in the development of the hypothesis, it can be concluded that there are several constructs, namely: confirmation, perceived usefulness, satisfaction, information quality, perceived privacy protection and security, trust, and continuance intention. The relationship built by each variable is described in the research framework, and it is hoped that in the future a conclusion will be obtained where all aspects can affect the continuance intention of digital payments in Padang city and its surroundings.

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