Jurnal Akuntansi dan Auditing Indonesia
https://journal.uii.ac.id/JAAI

Digital natives and mobile payment: Do individual affective responses influence technology adoption and recommendation intention?

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ARTICLE INFO

Article history:
Available online

Keywords:
Affective responses, digital natives, mobile payment

DOI:
https://doi.org/10.20885/jaai.vol25.iss1.art9

ABSTRACT

Technology advancement has transformed the recent trend of payment method from a traditional cash system to the use of electronic device connected to wireless network, known as mobile payment system. This study reviews the research model conducted by Verkijika (2020) which aimed to measure the effect of individual affective responses on the acceptance of mobile payment system by combining two theories: Social Cognitive Theory and Regret Theory. In particular, this research was conducted to observe the effects of affective responses on the behavior of digital native users. The structural model was applied to test the hypotheses using the SmartPLS 3.0 application. The data obtained through questionnaires collected from 301 respondents in Indonesia. The results of this study presented a variety of findings that were different from the comparative study. The findings indicate that there is no single affective factor that dominates the influence (of what?) on the users' intentions to adopt and to recommend the use of mobile payment technology.

Introduction

Technology advancement is among the driving forces of civilization change. The potential benefits and disruptions brought by a new technology have a profound impact on various aspects of people's lives, be it in the individual, social, or business realm. In today's modern business practice, world-changing inventions such as the Internet have led to major technological breakthroughs that have inspired new business models and improved the business performances across industrial sectors. The impact of technological advances has also penetrated various aspects of social life and individual behavior, which are now heavily dependent on the use of technology in daily activities. In the end of 2019, International Telecommunication Union (ITU) estimated the number of global Internet users reaching 4.1 billion people, or equal to 53.6 percent of the world population with an average annual growth of 10 percent during 2005-2019 (International Telecommunication Union, 2019). A similar trend also occurs in Indonesia, where the number of Internet users increases from year to year. Based on the annual surveys conducted by Indonesian Internet Service Providers Association (APJII) from 2016 to 2018, the number of Internet users in 2018 reached 171.17 million, equivalent to 64.8 per cent of Indonesian total population. This number increased by 8.87 per cent from that of 2017, as many as 143.26 million users, and 2016 recorded as many as 132.70 million users (APJII, 2016, 2019).

Payment service providers responded to this opportunity by developing various digital transformation initiatives. Among their important breakthroughs is the development of mobile digital payment application technology, in line with the increasing ubiquity of Internet access and the widespread use of mobile phones (Jocevski et al., 2020). Mobile payment (m-payment) provides services for customers to carry out a financial transaction in which the monetary value is transferred to the recipient via mobile devices and contactless technology enablers, such as Near-Field-Communication, quick response codes, wearables, and mobile wallet applications (de Kerviler et al., 2016).

Table 1. Annual Statistics of Electronic Money Transactions in Indonesia

Year	Volume of Transactions	Nominal of Transactions (in million rupiah)
2017	943,319,933	Rp 12,375,469
2018	2,922,698,905	Rp 47,198,616
2019	5,226,699,919	Rp 145,165,468

Source: (Bank Indonesia, 2020)

The volume of electronic transactions using mobile payments in Indonesia has continued to increase from 2017 to 2019 (Bank Indonesia, 2020). The Central Bank recorded a significant escalation in 2018, with a total volume of 2.9 billion compared to only 943 million transactions in 2017. This number is equivalent to 209.83 percent of the

P ISSN 1410-2420 | E ISSN 2528-6528

growth rate. The rising number also occurred in 2019 with a total of 5.2 million transactions, in which there was an increase of 78.83 percent compared to the previous year. As for the nominal figures, the electronic money transactions in Indonesia reached at least 145 trillion rupiahs in 2019. Table 1 shows the annual data of the 2017-2019 period. Along with the progressive growth, the prospect of an increasing use of mobile payment technology as a tool to facilitate electronic money transactions is widely open. The ongoing efforts to promote the cashless transactions to Indonesian consumers are also supported by the growth of the technology-based financial services industry in the country, which currently has at least 49 operating companies (Bank Indonesia, 2020).

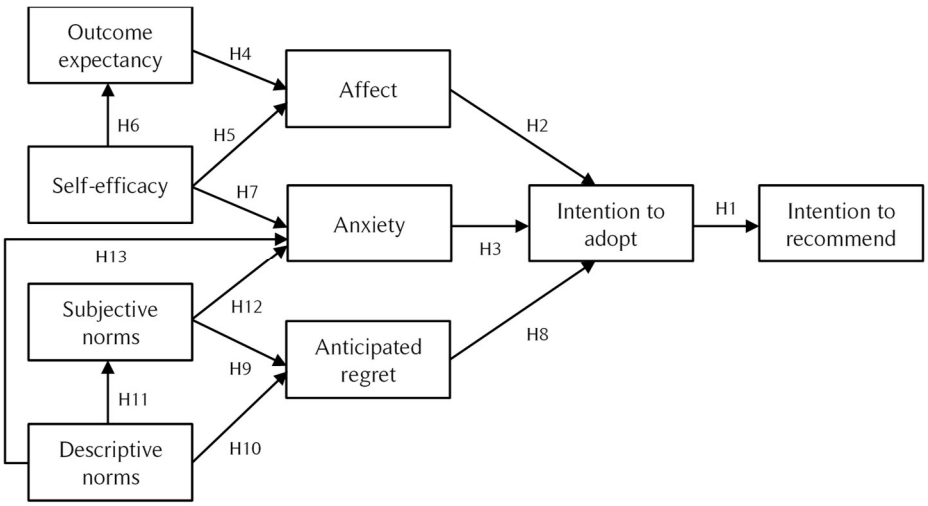
Digital technologies have been embedded into all stages of the transaction process, shaping the new look of modern business practices. However, the digital culture is affected by various factors that distinguish the consumers' behaviors and expectations, one of which is age factor (Priporas et al., 2017). From the demographic perspective, generations are commonly divided according to the range of birth year. This study focuses on the two most recent groups: Generation Y or millennials born between 1980–1994, and Generation Z or post-millennials born between 1995–2010 (McKinsey & Company, 2018). Both of these cohorts are primarily characterized by the extensive individual knowledge and proficiency to actively use technologies, and thus become the potential adopters of mobile payment technology. Generation Y is the earliest tech-savvy generation to interact with the Internet and grows up along with the transformation of digital technology, and Generation Z is the first cohort of true digital and mobile natives who have been living in a digital environment since they were born (Lanier, 2017; Marshall & Wolanskyj-Spinner, 2020). Thereof, the millennial and post-millennial generations represent the most proficient generations in the use of modern digital technology and the tech-savvy individuals who have greater potential to become mobile payment adopters. These two cohorts are commonly referred to as digital natives (Kesharwani, 2020; Kurkovsky & Syta, 2010).

However, individual traits are determined by unique emotional states of each person, which shape different behaviors and responses. Such emotion-related feelings (i.e. excitement, depression, anger, etc.) can either lead a person to approach or avoid certain behavioral intentions (Kim et al., 2011). The affective response in the consumption of goods and services is related to a series of emotional reactions that arise when consumers use a product or from their consumption experience (Nordhorn et al., 2019). Based on these descriptions, this study is to examine the effect of affective responses of digital native generation cohorts on their intentions to use and recommend mobile payment technology.

This research revisits the affective response model applied by Verkijika (2020) in his study on the use of mobile payments in South Africa. The research model will be applied to examine the mobile payment technology acceptance in Indonesia, especially among digital-native adopters (Generation Y and Z), which makes this research involves a more focused group of respondents than the previous study. The psychological aspects of users could vary across different cultures, economic, and technological accesses, therefore applying comparable research on different subjects and geographies is important to complement the previous findings (Ng, 2013; Tong, 2010).

Literature Review

The research analysis applied a combination of two basic theories, namely Social Cognitive Theory (SCT) and Regret Theory (RT) by proposing an emotion-based analysis that combined the roles of affect and anxiety originating from SCT and the anticipated regret derived from RT. The research construct is shown in Figure 1.



Source: Adopted from Verkijika (2020)

Figure 1. Research Construct

The previous adoption experiences influence a user's behavioral intention towards the use of a technology (Chang et al., 2017). The acceptance of technology is more than just a matter of individual behavior, but along with the presence of social networks it offers the new channels for dissemination of influential attitudes and behaviors to others (Talukder et al., 2019). The sustainability of a technology depends on the key behavior of its users throughout postadoption stage, regarding how they are willing to recommend the technology to others (Verkijika, 2020). Accordingly, this research hypothesizes that:

H_1: The intention to adopt mobile payment technology has a positive effect toward the intention to recommend the technology to others.

Affect is applied as a measuring variable that refers to the overall affective responses of the users to adopting a particular technology. This suggests that individuals will tend to enjoy what they feel capable of doing and disfavour the what makes them unpleasant. Such behaviors are influenced by many dimensions of affects, such as pleasure, arousal, and dominance (Kulviwat et al., 2014). In this study, affect represents a condition where users like the idea of using mobile payments or believe that they will get a pleasant experience from using this technology, so they will prefer to adopt it (de Kerviler et al., 2016; Rana & Dwivedi, 2015). This research formulates the following hypothesis as follows.

H_2: Affect has a positive effect toward the intention to adopt mobile payment technology.

The anxiety in using a certain information system arises along with the excessive fear and worry that individual feels about using the system, causing a low intention to adopt a particular technology or system. This anxiety creates significant resistance to technology adoption and results in a lack of individual experience. In the context of e-commerce, for example, customers with less experience with online shopping technology may also be more concerned about using it for their shopping activities (Çelik, 2011). Past studies have also indicated a negative relationship between anxiety and the adoption of a new technology, including in the use of mobile payment technology (Bailey et al., 2017; Donmez-Turan, 2019). Based on these premises, the following hypothesis is formulated as follows.

H_3: Anxiety has a negative effect toward the intention to adopt mobile payment technology.

Outcome expectancy is an individual's internal drive to gain confidence that adopting certain technologies will lead to desirable outcomes (Benbunan-Fich & Arbaugh, 2006; Yang et al., 2007). Therefore, the individuals who expect positive benefits from using mobile payment technology will have a higher intention to use the technology than those who do not expect any benefits. Prior studies revealed that outcome expectancy had a positive relationship with the individual's behaviour in the use of particular technologies, such as airline e-services (Urumsah, 2015), e-government (Rana & Dwivedi, 2015), and mobile payment systems (Verkijika, 2020). As such, this study hypothesizes that:

H_4: Outcome expectancy has a positive effect toward user's affect regarding mobile payment technology.

The SCT was initiated by Bandura (1999), emphasizing that portions of an individual's behavior can be formed and controlled by personal and environmental stimuli. Among the various past studies which applied SCT in assessing technology adoption, one that received large attention is the research conducted by Compeau, Higgins, and Huff (1999), which measured the individuals' reactions toward computer usage. Their study findings demonstrated a significant influence of self-efficacy on outcome expectancy, as well as a strong association between self-efficacy and both affect and anxiety. The research model proposed by Verkijika (2020), which is revisited in this study, includes the same variables. Hence, this study focuses on three personal determinants of SCT to measure the behavior of mobile payment users, including self-efficacy, outcome expectancy, and anxiety. Self-efficacy aspect reflects how mobile payment users believe in their ability to use the technology. Outcome expectancy reflects the results or accomplishments a user can get from adopting the technology. In addition, affect and anxiety represent an individual's affective responses to the use of mobile payment technology, where affect represents the enjoyment a person gets from using the technology (positive side), while anxiety represents the fear and worry experienced when using the technology (negative side). Therefore, the following hypotheses are developed.

H_5: Self-efficacy has a positive effect toward user's affect regarding mobile payment technology.

H_6: Self-efficacy has a positive effect toward user's outcome expectancy regarding mobile payment technology.

H_7: Self-efficacy has a negative effect toward user's anxiety regarding mobile payment technology.

The Regret Theory (RT) states that human decisions are not solely based on expectations of benefit, but also include several elements of regret (Levy, 2017). RT introduces the anticipated regret factor as part of an individual's affective determinants which can be interpreted as negative emotions or dissatisfactions experienced by the individual when making decision about a future choice (Lazuras et al., 2017). In the context of this research,

anticipated regret is defined as a negative emotion that occurs within an individual when the person is about to make a decision to adopt mobile payment technology. Thus, the next hypothesis is formulated as follows.
H_8: Anticipated regret has a positive effect toward the intention to adopt mobile payment technology.

Subjective norm is considered to have an effect on anticipation of regret, where individuals tend to consider the opinions of their social groups to accept a technology or system (Zhang et al., 2018). Decisions that refer to social group endorsement are expected to minimize regrets, although these decisions do not represent the actual individual preferences. In addition, descriptive norms are also considered to have an indirect effect on behavioral intentions in adopting mobile payment services through anticipated regret, where individual tends to anticipate the regret of experiencing loss due to the use of technology. Therefore, this research hypothesizes that:
H_9: Subjective norm has a positive effect toward anticipated regret.
H_{10}: Descriptive norm has a positive effect toward anticipated regret.

Descriptive norm, as mentioned in the previous hypothesis, refers to the influence of normative norm in which an individual's behavior is usually repeated by others and is generally obedient to the pressure and control of a social group (Cialdini et al., 1990; Hagger & Chatzisarantis, 2006). Therefore, descriptive norm in technology adoption can also be measured through its influence on subjective norm (Ramayah et al., 2009). Furthermore, both of the subjective and descriptive norms are among the factors examined in the prior research to measure the individual's anxiety or uncertainty in adopting technology. Inexperienced users tend to highly value the opinions and experiences of their social environment. By involving their significant relatives, users can get more information about the benefits and ways of using a new technology that will help reduce their anxiety (Verkijika, 2020). Thus, the hypotheses are formulated as follows.
H_{11}: Descriptive norm has a positive effect toward subjective norm.
H_{12}: Subjective norm has a negative effect toward anxiety.
H_{13}: Descriptive norm has a negative effect toward anxiety.

Research Method

This research is a quantitative study using primary data obtained from the distribution of online questionnaires using Google Form. Purposive sampling technique was applied by targeting the respondents with certain profile criteria covering the age range (18-35 years), to ensure that they were true representatives of Generation Y and/or Generation Z, and had the experience in using mobile payment technology. The variables were measured using Likert scale with even-numbered survey scale (1=strongly disagree to 6=strongly agree) to avoid the respondents' preference to give a neutral rating on the answer, thus making it easier to identify the positive and negative responses.

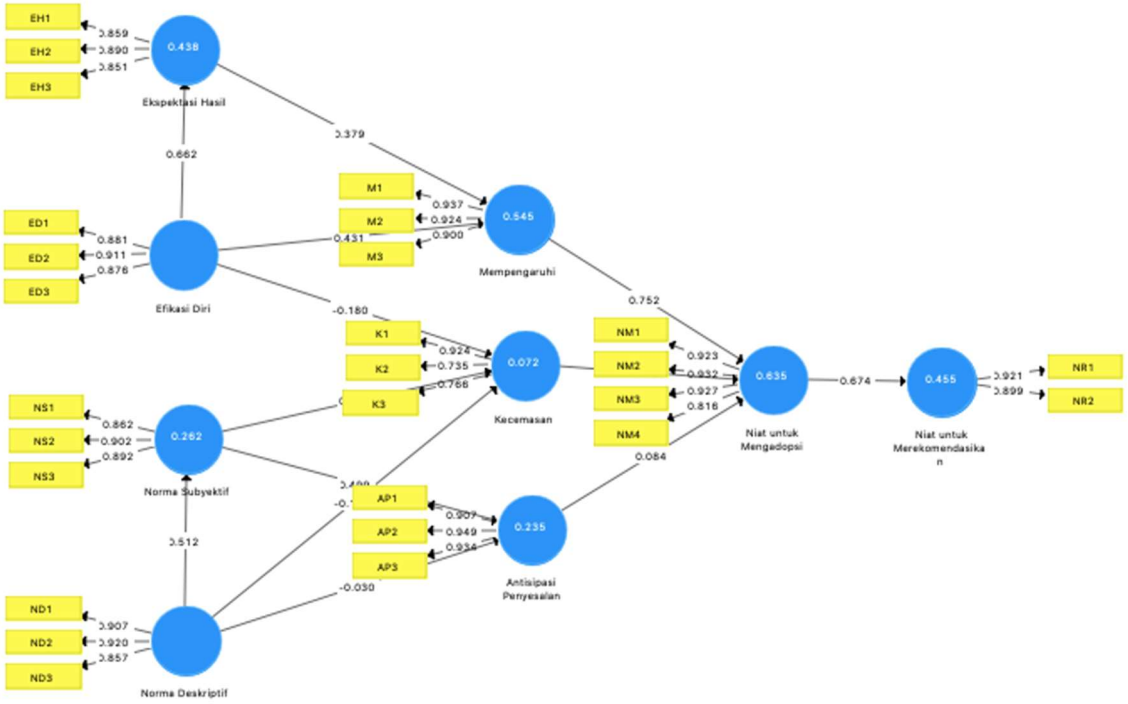


Figure 2. Indicators and Variables - SmartPLS

The method of estimating the minimum sample size that is most widely used in PLS-SEM is the "10-time Rule" method (Hair et al., 2011). This method is also suitable for the research with the large or uncertain number of population. In this approach, the sample size must be greater than 10 times the maximum number of the indicators pointing to the dependent variables. In this study, the most indicators were used in the dependent variables to measure the intention to use mobile payment technology – 4 indicators (see Figure 2). On this basis, the minimum number of samples required for this study is 40 respondents. However, the analysis of this study sought to target a larger number of samples (300 respondents), assuming that the larger the number of samples studied, the less likely it was for generalization errors to occur.

This study adopted Structural Equation Modeling (SEM) using partial least squares (PLS). SEM is a technique to measure the causal relationships using a combination of qualitative causal hypotheses and statistical data modeling. PLS does not require a large sample size and is suitable for the research where not all items in the analyzed data are normally distributed (Hair et al., 2011; Pangesti & Sumertajaya, 2016). PLS is a multivariate statistical technique to analyze the multiple independent variables, even though there is multicollinearity among these variables, which is relevant to be applied to the research construct in this study. The PLS-SEM analysis in this study was carried out in two phases, including the measurement model (outer model) and the structural model (inner model).

Table 2. Profile of Respondents

Characteristics	N	%
Gender		
– Female	232	77.1%
– Male	69	22.9%
Mobile payment adoption		
– Current adopters – have been using mobile payments	251	83.4%
– Past adopters – used mobile payment but no longer use it	50	16.6%
Total respondents	*301*	*100%*

Results and Discussion

This research involved digital natives (Generation Y and Z) in Indonesia who had experience in using mobile payment technology, with the total of 301 respondents completing the online questionnaire distributed via Google Form. Table 2 provides an overview on the profiles of the respondents, signifying that the majority of the respondents (83.4 percent) were active or current adopters of mobile payment technology, while the rest was inactive users, but they had past experience in adopting mobile payment services. Referring to these figures, the data sample obtained met the requirements to be analyzed using the research instruments.

The measurement model was a reflective assessment using reliability and validity tests. Both convergent and discriminant validity tests were conducted to determine whether the accuracy of the research construct used in this study could be ascertained. Convergent validity testing is indicated by a high correlation between the construct value and its indicators which are considered valid if the outer loadings value is greater than 0.70, and the AVE value is above 0.50. Regardless of this requirement, outer loading values between 0.60 to 0.70 are still acceptable (Hair et al., 2011). The discriminant validity test was done by measuring the root AVE value and the loading value of each indicator which had to be higher than the cross-loading value (>0.60). The results suggested that the research instrument had met the validity criteria (see Table 3 and Table 4).

Reliability test is intended to ensure the degree of accuracy and consistency of the research construct, confirming the Composite Reliability (CR) value to be above 0.70 and Cronbach Alpha (CA) must be greater than 0.60. The test results shown in Table 5 indicate that all variables used in this study had met the requirements.

Structural model testing aims to predict the relationships among the latent variables that make up the research model using goodness-of-fit (R-square). In the linear regression model, the R-square shows the percentage of variance of dependent variable that is explained collectively by independent variables, where the higher the percentage is, the better the model fits the data. The research model showed the value of $R^2 = 0.635$ for the intention to adopt, indicating that 63.5 percent of the independent variables used in the research construct were able to mutually explain the user's intention to adopt mobile payment technology.

The measurement of the significance value was applied to test the hypothesis by comparing the t-statistic and t-table values. Provided that t-statistic is larger than the t-table, the result is significant. In this study, the significance level was set to 0.05 and t-table 1.96. Table 6 displays the results of hypothesis testing.

The results of hypothesis testing in this study provide partial confirmation of the findings reported in the previous research conducted by Verkijika (2020). Table 7 provides a comparison between both research findings. The measurement results have shown that the intention to use mobile payment system is significantly correlated to the intention to recommend the technology (H1), which is supported by several influencing factors that have been

confirmed in the research construct. These results support the previous findings by Oliveira, et al. (2016) which emphasize that mobile payment users tend to recommend the technology to others after experiencing the use of the technology and seeing the positive aspects from it.

Table 3. Convergent Validity Testing Result

Variable	Item	Outer Loadings	AVE
Affect	M1	0.937	0.847
	M2	0.924	
	M3	0.900	
Anxiety	K1	0.924	0.660
	K2	0.735	
	K3	0.766	
Outcome Expectancy	EH1	0.859	0.752
	EH2	0.890	
	EH3	0.851	
Descriptive Norms	ND1	0.907	0.802
	ND2	0.920	
	ND3	0.857	
Subjective Norms	NS1	0.862	0.784
	NS2	0.902	
	NS3	0.892	
Self-efficacy	ED1	0.881	0.791
	ED2	0.911	
	ED3	0.876	
Anticipated Regret	AP1	0.907	0.865
	AP2	0.949	
	AP3	0.934	
Intention to Recommend	NR1	0.921	0.828
	NR2	0.900	
Intention to Adopt	NM1	0.923	0.811
	NM2	0.932	
	NM3	0.927	
	NM3	0.816	

Table 4. Discriminant Validity Testing Results

Variable	AVE	√AVE	Remark
Anticipated Regret	0.87	0.93	Valid
Self-efficacy	0.79	0.89	Valid
Outcome Expectancy	0.75	0.87	Valid
Anxiety	0.66	0.81	Valid
Affect	0.85	0.92	Valid
Intention to Adopt	0.81	0.90	Valid
Intention to Recommend	0.83	0.91	Valid
Descriptive Norms	0.80	0.90	Valid
Subjective Norms	0.78	0.89	Valid

Table 5. Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability
Anticipated Regret	0.92	0.95
Self-efficacy	0.87	0.92
Outcome Expectancy	0.84	0.90
Anxiety	0.78	0.85
Affect	0.91	0.94
Intention to Adopt	0.92	0.94
Intention to Recommend	0.79	0.91
Descriptive Norms	0.88	0.92
Subjective Norms	0.86	0.92

Table 6. Hypothesis Testing Result

	Hypothesis	*Original Sample*	*T-Stat*	Result
H1	Int. to adopt → Int. to recommend	0.67	14.10	Confirmed
H2	Affect → Intention to adopt	0.75	18.46	Confirmed
H3	Anxiety → Intention to adopt	-0.07	1.85	Not confirmed
H4	Outcome expectancy → Affect	0.38	3.82	Confirmed
H5	Self-efficacy → Affect	0.43	4.75	Confirmed
H6	Self-efficacy → Outcome expectancy	0.66	10.63	Confirmed
H7	Self-efficacy → Anxiety	-0.18	2.14	Confirmed
H8	Anticipated regret → Intention to adopt	0.08	2.26	Confirmed
H9	Subjective norms → Anticipated regret	0.50	8.08	Confirmed
H10	Descriptive norms → Anticipated regret	-0.03	0.51	Not confirmed
H11	Descriptive norms → Subjective norms	0.51	10.80	Confirmed
H12	Subjective norms → Anxiety	0.10	1.34	Not confirmed
H13	Descriptive norms → Anxiety	-0.16	1.75	Not confirmed

Table 7. Comparison of the Research Findings

	Hypothesis	Result	Prior Study - Verkijika (2020)
H1	Int. to adopt → Int. to recommend	Confirmed	Confirmed
H2	Affect → Intention to adopt	Confirmed	Confirmed
H3	Anxiety → Intention to adopt	Not confirmed	Not confirmed
H4	Outcome expectancy → Affect	Confirmed	Confirmed
H5	Self-efficacy → Affect	Confirmed	Not confirmed
H6	Self-efficacy → Outcome expectancy	Confirmed	Confirmed
H7	Self-efficacy → Anxiety	Confirmed	Confirmed
H8	Anticipated regret → Intention to adopt	Confirmed	Confirmed
H9	Subjective norms → Anticipated regret	Confirmed	Confirmed
H10	Descriptive norms → Anticipated regret	Not confirmed	Confirmed
H11	Descriptive norms → Subjective norms	Confirmed	Confirmed
H12	Subjective norms → Anxiety	Not confirmed	Confirmed
H13	Descriptive norms → Anxiety	Not confirmed	Confirmed

The results of both studies support the influences of affect (H2) and anticipated regret (H8) on the intention to use mobile payment technology. However, the previous research has emphasized that anticipated regret is the factor that influences the intention to adopt the technology the most, while affect shows the most dominant influence in this research. Positive affect responses driven by the users' belief in the idea and enjoyment of using the technology tend to significantly influence the behavior of adopting the system. Whenever the users are exposed to a new technology, they develop self-confidence in using the system that will underlie their adoption behavior. The digital natives, who in fact have an early access to digital technology, are usually more engaged with the network world and able to learn and use digital technology in a better way than the previous generation cohorts (Kesharwani, 2020). These characteristics create a stronger positive influence on the formation of the behavior of this particular generation group. Therefore, finding affect as the dominant factor influencing the intention to adopt mobile payment system is reasonable.

Self-efficacy portrays the user's appraisal towards his or her personal aptitude for successfully performing and accomplishing an assignment to achieve the desired result in a certain domain (Bandura, 2001; Lestari, 2019). In this research, the higher level of individual self-efficacy in using mobile payment technology will increase the propensity to be involved in the activities in that domain. In contrast to the results of the previous research conducted by Verkijika (2020), this study confirms the hypothesis on self-efficacy and affect (H5), where higher self-efficacy significantly affects the overall positive attitude toward and enjoyment in using the system. Although the result differs from the comparative study, this finding supports other studies conducted on e-government systems (Rana & Dwivedi, 2015).

The results of this study also showed that the influence of self-efficacy on affect was mediated by outcome expectancy (H6). This demonstrates that the user's self-efficacy will influence their positive attitude towards the use of mobile payment system when they feel the presence of benefits or positive outputs from the technology that meet their needs and desires. The test results in this research approve the hypothesis on self-efficacy and anxiety (H7) which supports the findings of the comparative study which emphasizes that self-efficacy in using a mobile payment system will reduce anxiety in adopting the technology. Nonetheless, anxiety does not show a significant association with the intention to adopt mobile payment system (H3). This finding is in line with the previous research conducted by Verkijika (2020), however, it contradicts other studies that concluded a negative relationship between user's anxiety and readiness for technology adoption (Donmez-Turan, 2019; Patil et al., 2020).

The hypothesis on the relations between descriptive norms and subjective norms is confirmed in this study (H11). The finding claims the influence of pressure and control of a social group on the formation of individual behavior. In this particular case, a user is encouraged to adopt a mobile payment system because he or she witnesses the people in his or her social circle also use the technology and believes that the social group would expect the user to do the same. The relationships between subjective norms and anticipated regret are confirmed in both this research and the comparative study (H9), whilst different results were found in the connection between descriptive norms and anticipated regret (H10) where the findings of this study did not show a significant relationship. This shows that the user's response to anticipation of regret is not significantly influenced by the behavior of other people in their social group in using the technology, but the user consider the potential disappointment that may arise from the members of their social group if they refuse or fail to participate in using mobile payment technology. Finally, the user does not perceive that the influence of social groups in the context of subjective norms (H11) or descriptive norms (H12) will have a significant effect on reducing their anxiety level in using the mobile payment system.

Conclusion

This study reviews the research model of the influence of affective responses on the adoption of mobile payment technology conducted by Verkijika (2020) with a particular attention on the digital natives in Indonesia. The results of this study indicate that there is no single affective factor that has the most influence on the acceptance and use of a technology. In relation to this study, the application of different research subjects will provide a variety of different results. This study raises several different findings compared to its comparative study and confirms that affect has the greatest influence on the intention to adopt mobile payment systems (while the prior study highlights anticipated regret as the strongest influencing factor).

The re-application of previous research model in this study has contributed to the expansion of the related studies that complement the insight into understanding the diversity of emotional responses and their effects on the behaviors of the mobile payment system users. The practical implications of this research can be useful for the mobile payment service providers and banking industry, especially in understanding the features and behaviors of digital natives in Indonesia. Generation Y and Z customers have a basic provision of positive attitudes which are reflected from the strong influence of affect on the intention to use a technology. Although there is no significant impact on reducing anxiety over technology adoption, the users still anticipate self-regret by considering the possible responses given by their social groups if they do not participate in using the technology. Therefore, mobile payment services providers need to pay higher attention on the socially influencing factors to promote and improve the user's acceptance and participation. The intense utilization of social media is one of the alternatives, considering that digital natives may have unique behaviours and interaction models as social media users (Brännback et al., 2017; Nikou et al., 2018).

There are limitations to note as our samples consisted of digital natives. Although the samples could be used to represent a population of certain user groups, particularly in Indonesia, the findings might be biased by the fact that the respondents in this research were limited to those predominantly resided in urban areas which allowed them to be accustomed and active in the use of mobile technology. This study also does not take into account the older generation cohort, so future studies need to consider the use of random sample. Responding to the limitations of this study, future research could be developed by examining the behaviors and influence of affective responses across generational cohorts towards banking technologies, which has also been underlined in several foregoing studies (Alhabash et al., 2015; Harris et al., 2016). In addition, the user's view on cognitive age as an additional measure of emotional factors is also important given that the chronological age does not entirely reveal an individual's state of mind (Yang & Shih, 2020).

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