



Varying Roles of Habit in Proliferation of Continuous Usage of E-Wallet

Citra Noviyasari*^{1b}

Department of Information System, Universitas Komputer Indonesia, Bandung, Indonesia
citra.noviyasari@email.unikom.ac.id

Abstract. One of the information systems expected to continue attracting individuals to use it in their daily activities is the e-wallet; from the introduction of the e-wallet, the process of adopting it, the decision to continue using the e-wallet and to making the use of e-wallet an unconscious habit. This study explores the continued use of e-wallets and what motivates individuals to make them a habit without awareness. The basic framework used is the Expectancy-Confirmation Model (ECM) along with trust, expected to provide new understanding of the phenomenon. A quantitative approach through questionnaires as a tool has collected data to be processed using SmartPLS. The idea is that perceived usefulness and satisfaction can motivate individuals to use e-wallets as a conscious habit without considering it an initial confirmation. These four satisfaction models indicate that habit can be antecedents of continuous intention and make continuation intention an antecedent of intention. This study strengthens the prior assumption that there is no role of habit as a mediator and moderator. The habit was found to be insignificantly moderating the relationship between IS continuous intention and IS continuous usage. This study can be fundamental that habituation of new technology will impact the acceptance and continued use of that technology.

Keywords: E-wallet, Continuous Intention, Habit

1 Introduction

In general, the spread of technology as a form of innovation has several stages, namely the stages of knowledge, persuasion, decision-making, implementation and confirmation [1]. When technology innovation starts to spread, users realize it by discovering and thinking about whether to adopt the system or ignore it. Users will begin adopting the system when they decide to use it. After that, the user enters the stage to confirm the implementation of the system for the first time.

After having experience using technology for the first time, the user will go through a decision-making process, whether to continue using the technology or stop using the technology. The decision to continue using the technology will bring the user to a routine of using the technology. The repeated action of technology use will be expected to erect new habits for the user. According to Verplanken, repeated behavior requires action motivation [2]. This motivation could arise because of the satisfaction obtained by

users after the first experience using the technology or the benefits perceived by users when using the technology.

Currently, e-wallets in Indonesia can be broken down into two categories. The first category is people who have used e-wallets. There are several sub-categories in it, whereby people in this category can be distinguished based on those still in the adoption stage and those who have used e-wallets repeatedly and used e-wallets as a new habit and embraced financial technology. On the other hand, some people do not use an e-wallet. Based on data on electronic money transactions issued by Bank Indonesia, there has been a significant increase in the use of e-wallets in Indonesia. In 2017, it was 12.37 trillion rupiahs, and in 2018 it was 47.19 trillion rupiahs [3]. Even in February 2021, BI recorded e-wallet transactions of 19.2 trillion rupiahs [4]. In 2019, e-wallets became the most widely used payment type, and the COVID-19 pandemic led to increased payments using e-wallets [3].

Many researches of habit are in the psychological realm. Past habits are expected to predict future habits because the frequent use of e-wallet in the past will show vigourity of the habit and directly affect the future divides the habit response into two processes: behavior practiced well in constant repetition and transforming behavior performance into something automatic [5-6].

There are several studies on habits in the use of technology. Some of it was researched [7]. Their research divided habit into two groups. The first group discussion was about the possibility of habit as a variable that moderates the relationship between continuous intention and usage behavior. And other group places habit as an antecedent variable of usage behavior. Another habit research was conducted, who made a habit as a mediator variable and precedent of continuous intention [8]. This study emphasized that habits will be form because users frequently use technology; this repeated use of technology is described in a modified ECM.

This study will reveal some of the roles of habit. Under the first condition, this research will render habit as an antecedent of continuous intention. This is because of the possibility of someone deciding to re-use technology if they have ever used it before and are satisfied with its use. In the second condition, the idea is based on the research, which mediates habit on customer satisfaction with intention [8]. Under the third condition, this study placing habit as a variable that moderates the connection between perceived usefulness and continuous intention, also between satisfaction and continuous intention [9]. The last model is a habit as the dependent variable and becoming continuous intention as an antecedent habit. This idea is adapted from Verplanken's research, which reveals that habit is a long-term behavior change that requires motivation. This study aims to investigate the relationship between continuous intention and habit, based on four different models.

2 Literature Review

An e-wallet is an innovative financial service or product that uses technology via a smartphone. E-wallet has unique characteristics, one of which is the addition of a tool to read signals from smartphones so that apart from more merchants using an e-wallet,

it is also hoped that more users will use e-wallets [10, 11]. At this point, we hope that using e-wallets as a payment method becomes a habit. This study uses modified Expectation confirmation model (ECM), by adding habit as variable because the ECM requires users to have used the e-wallet at least once, and the repeated use of the e-wallet is expected to build users' habit of using an e-wallet.

2.1 Conceptual Framework

The research model uses the continuous intention model that introduced by adding the habit variable [11]. In this study, the habit will be positioned as an antecedent variable of continuous intention, as a moderator variable that moderates satisfaction and perceived usefulness, as well as a variable that mediates continuous intention variable, and finally makes habit a dependent variable.

Considering IDT's theory, the framework model can be categorized into two: the acceptance and continuous models. The acceptance model is the initial introduction and acceptance of technology. The TRA (Theory of Reasoned Action) model is often used in cognitive psychology. A people's behavior could be predicted through intention and subsequently influenced by the people's attitude towards behavior and social norms [12]. Later, this model was developed into TPB (Theory of Planned Behavior) and TAM (technology acceptance model). Ajzen argued that personal perceptions of behavioral control (PBC) could influence intentions and behavior [13]. This PBC factor is modelled as TPB.

In comparison, the TAM model focuses on two main perceptions of Information Technology [14]. Information technology stops how the technology can be adopted and, even further, how it survives in the long term. There is a research model that explains acceptance, but this model also explains the use of technology. This model is a union of the above models with other acceptance models [15]. The current development of UTAUT has added hedonic motivation, habits, price value and perceived enjoyment as variable, apart from the initial construction, namely performance expectations, social influences, business expectations and facility conditions [16]. Some researchers agree that the sustainable research model is essential, and making it a habit to use technology will initiate the survival of the technology. Sustainability follows a series of behavioral patterns following initial acceptance conditions [1]. One of the sustainable use models is the ECM.

2.2 Hypotheses

In ECM, the depiction of the adoption of information technology is represented by the confirmation variable. This variable confirms that technical knowledge is the initial expectation of the user against the real expectation experienced by the user. The basic assumption of the ECM model is that users have used information technology at least once. The decision to re-use an information technology is based on the satisfaction and benefits felt by the user. Furthermore, the decision to re-use a technology can be made based on users' conscious awareness or if it has become an automatic habit due to routine use by the users. This routine is assumed to be a habit.

Confirmation. Confirmation is the difference between users' initial expectation of a product and the result of their experience after using the product. It means the initial expectations may change after the users' experience. For this reason, confirmation occupies a crucial position in ECM [17]. The discontinuation of e-wallet use happens when the transaction performance using an e-wallet turns out to be less than the users' initial expectations, leading to the dissatisfaction of e-wallet users. On the other hand, if the performance exceeds the user's initial expectations, the user will be satisfied with the transaction using e-wallet. Furthermore, the IT continuation model is based on perceived benefits, and user satisfaction will be the intention to continue using IT, and both of these predictors are highly dependent on the variable of expectations [18]. Based on the premise above, the hypotheses built are as follows:

- (i) H1a: Confirmation has a significant effect on perceived usefulness
- (ii) H1b: Confirmation has a significant effect on satisfaction

Perceived Usefulness. Perceived usefulness is determined as a person's belief that using an e-wallet will enhance his/her performance in daily activities [18]. Perceived usefulness can also indicate that consumers have completed their goals using e-wallets [19]. In addition, post-adoption expectations can also be formed because of the benefits felt by users [20]. Perceived usefulness is likely to have a long-term and lasting effect on continuous intention to use IT [21]. This long-term use is expected to become a new habit for users who constantly use e-wallets in their daily activities. Based on the premises above, the hypotheses built are:

- (i) H2a: Perceived usefulness has a significant effect on continuous intention
- (ii) H2b: Perceived usefulness has an indirect relationship with continuous intention through habit

Satisfaction. Satisfactory experiences tend to make users repeat the experience. Some studies stated the effect of satisfaction on continuous intention and have proven that user satisfaction is essential in influencing continuous intention. Based on Oliver's observations, satisfaction can arise from various interactions between users and providers [22], that users will not continue using mobile payments if unsatisfied with the service [23]. The relationship between intention and satisfaction to use m-banking by advancing knowledge about the service, where the satisfaction of use is expected to trigger users to re-use e-wallet [24]. Based on the premises above, the hypotheses are as follows:

- (i) H3a: Satisfaction has a significant effect on continuous intention.
- (ii) H3b: Satisfaction has an indirect relationship with continuous intention through habit.

Habit. Users who already have experience using e-wallets will create new habits that will encourage continued use of e-wallets. Integrated habit into ECT and stated that habit directly affects the continuous use of IS [6,8]. Therefore, the habit of using an e-wallet will affect the intention to continue using an e-wallet; habits can be a factor in predicting a person's future behavior [25]. That habits positively moderate the effect of

satisfaction on the intentions of repurchase, and habit will moderate the effect between intention continuous and perceived usefulness [26]. Based on the premise above, the hypotheses built are as follows:

- (i) H4a: Habit has a significant effect on continuous intention
- (ii) H4b: Habit moderates perceived usefulness to re-use e-wallet
- (iii) H4c: Habit moderates' satisfaction to re-use e-wallet

Continuous Intention. Continuous Intention is the subjective tendency to choose a technology [25, 27]. Continue using an e-wallet after their first experience using an e-wallet, it can be used as a basis for an unconscious habit. Based on the premise above, the hypotheses built are as follows:

- (i) H5: Continuous Intentions has a significant impact on habit

3 Research Methodology

Research methodology is the study that explains research process should conduct to ensure the performance of the whole process of research runs smoothly. This study examines the direction of continuous intention and habit. In this study, continuous intention is designated as the strength of personal's intention to re-use an e-wallet, e-wallet usage frequent can indicate that the habit has been built. This study adopts ECM by adding the habit variable. ECM adoption is based on previous research, using instruments following previous literature and a Likert research scale of five. The distribution of e-wallets is limited to Indonesian residents using the google form; that is why cities, where the respondents in this research live are scattered in Indonesia. The expected respondents are e-wallet users who have made transactions more than once, so the 227 valid questionnaires obtained are used as material for statistical calculations. This study uses PLS-SEM that conduct two phases, which the first phase is to measure the model, and next phase is to test the structural model [28]. Although this study uses four research models using ECM and habit, the measurement model shown is only once. The purpose of measuring the model is to determine whether the model used is valid and reliable [29]. Moreover, every model measurement produces the same result: the value of outer loading, Cronbach's alpha, composite reliability, Average Variance Extracted (AVE), and Heterotrait-Monotrait Ratio Scale (HTMT) show the same results. Huge differences occur when testing the hypothesis in the structural measurement phase. Furthermore, this research focuses on the difference in the role of habit in the ECM model.

This study uses two stages of PLS-SEM: the first stage is to measure the model, and the second is to test the structural model [28]. Although this study uses four research models using ECM and habit, the measurement model shown is only once. The purpose of measuring the model is to determine whether the model used is valid and reliable [29]. Moreover, every model measurement produces the same result: the value of outer loading, Cronbach's alpha, composite reliability, Average Variance Extracted (AVE), and Heterotrait-Monotrait Ratio Scale (HTMT) show the same results. Huge differences occur when testing the hypothesis in the structural measurement phase. Furthermore, this research focuses on the difference in the role of habit in the ECM model.

4 Data Analysis and Results

This research uses SEM (Structural Equation Modeling) technique, and the data analysis process uses Partial Least Squares (PLS). PLS-SEM allows one to determine the relationship between the conceptual factors and the measures underlying each variable, whether the hypothesized relationship at the theoretical level is empirically valid, and how well the measures in each variable are. This study uses a reflective measurement model.

4.1 Measurement Model

Testing the measurement model uses reliability and validity testing to determine indicators that meet the requirements of confirmatory factor analysis. Reliability testing is obtained by calculating the outer loading value by removing the outer loading value below 0.70 and maintaining values other than that [30].

Convergent validity indicates the extent to which the theoretically related scale items are also related in reality. Calculation of convergent validity can use the outer loading technique, composite reliability or Cronbach's alpha and Average Variance Extracted (AVE) [31].

Table 1 shows that several indicators that have been deleted, namely CI6, Co1, Ha6, Sa3 and Sa4, meet the rules of confirmatory factor analysis. In the table, it can also be seen that the assessment of internal consistency reliability, represented by composite reliability, has a value between 0.70 and 0.95 because values above 0.95 will cause unwanted response patterns [32]. The Cronbach score, another internal composite reliability measure, ranges from 0.842 to 0.919. Cronbach's alpha is a low-value version of composite reliability [29]. Moreover, the AVE value has a value of more than 0.5, between the range of 0.66 to 0.761. The AVE value is obtained by using the average value of the reliability indicators of a variable divided between variables and their indicators. The minimum limit value is 0.50 (50%) [32]. (see Table 1).

Table 1. Convergent validity.

Construct	Item	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
Continuous Intention	CI1	0.804	0.886	0.916	0.686
	CI2	0.799			
	CI3	0.799			
	C14	0.886			
	CI5	0.851			

Table 1 (Continued). Convergent validity.

Construct	Item	Outer Load- ing	Cronbach's Al- pha	Composite Re- liability	AVE
Confirmation	Co2	0.792	0.913	0.933	0.698
	Co3	0.809			
	Co4	0.842			
	Co5	0.886			
	Co6	0.846			
	Co7	0.833			
	Habit	Ha1			
Ha2		0.879			
Ha3		0.836			
Ha4		0.893			
Ha5		0.712			
Ha7		0.757			
Perceived Usefulness		Pu1	0.751	0.919	0.935
	Pu2	0.788			
	Pu3	0.843			
	Pu4	0.871			
	Pu5	0.808			
	Pu6	0.886			
	Pu7	0.793			
Satisfaction	Sa1	0.866	0.842	0.905	0.761
	Sa2	0.93			
	S4	0.846			

Discriminant validity testing involves checking whether the item measures that particular variable or other related variables. This testing technique uses HTMT criteria. HTMT explain about mean value of the correlation of items across variables relative to mean [29]. Table 2 depicts HTMT's range values is between 0.585 to 0.871; this result is acceptable with a cut-off value of 0.90. The condition for adjusting the calculation results to the cut-off value of HTMT causes the elimination of Sa3 and Sa5 values. (see Table 2).

Table 2. Discriminant validity: HTMT.

	Confirma- tion	Continuos In- tention	Habit	Perceived USE- fulness	Satisfac- tion
Confirmation					
Continuos In- tention	0.721				
Habit	0.630	0.847			
Perceived USE- fulness	0.791	0.683	0.585		
Satisfaction	0.871	0.859	0.780	0.859	

The results of the assessment measurement model that have met the reliability and validity requirements allow further testing, namely the measurement of the structural model [31].

4.2 Structural Model and hypotheses Testing Continues Intention

In this study, the measurement of the structural model is represented by the path coefficient test. This test is intended to test the hypothesis set at the beginning of the study. This study determines the beta value and standard error with a significant level of 95%. This time, the structural model was measured five times, according to the number of models to be studied. All hypothetical models used the bootstrapping procedure with $p < 0.05$. Hypothesis testing can be seen from the t-value above 1.645 because the hypothesis is one-tailed [33].

Model #1 describes habit as a predictor of continuous intention. All paths have a t-value higher than 1,645, namely the value of 1.936 for the relationship between perceived usefulness and continuous intention and 4.723 for the relationship between satisfaction and continuous intention. Finally, the relationship between habit and continuous intention is 9.563. Continuous intention has a determinant coefficient of 0.689, which means that 0.311 other variables can affect continuous intention (see Fig. 1).

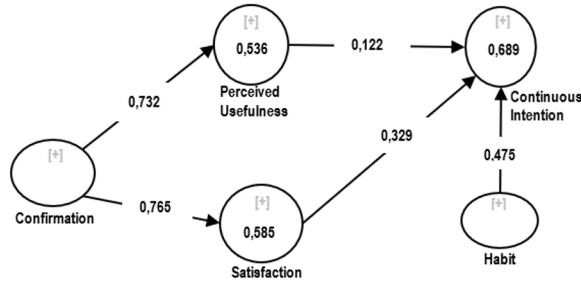


Fig. 1. Habit as antecedent.

Model #2 describes habit as a mediator between perceived usefulness and satisfaction with continuous intention. The direct path value between perceived usefulness and habit is insignificant, and the indirect path value between perceived usefulness, habit and continuous are not significant. It means that habit is not a mediator for perceived usefulness. As for the value of satisfaction, both the direct and indirect path values have significant values and have a unidirectional relationship; this means that habit can be a mediator for satisfaction. If the direct and indirect path values are signed with the same relationship direction, it is complementary mediation [23]. Continuous intention has a determinant coefficient of 0.688 (see Fig. 2).

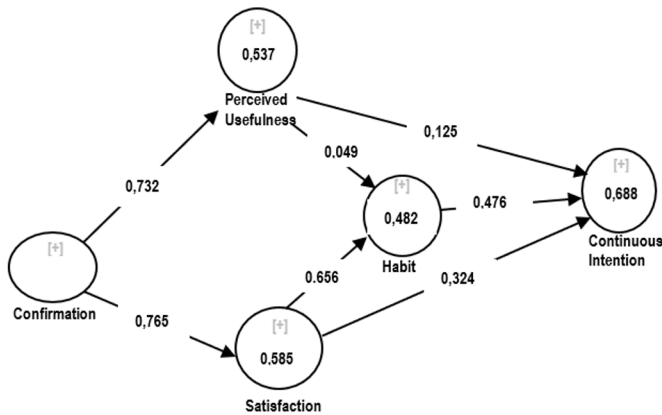


Fig. 2. Habit as mediator.

Model #3 describes habit as a moderator between perceived usefulness and satisfaction with continuous intention. The bootstrapping calculation produces a moderator value for perceived usefulness and not significant satisfaction, namely 0.863 for perceived usefulness and 0.515 for satisfaction (see Fig. 3).

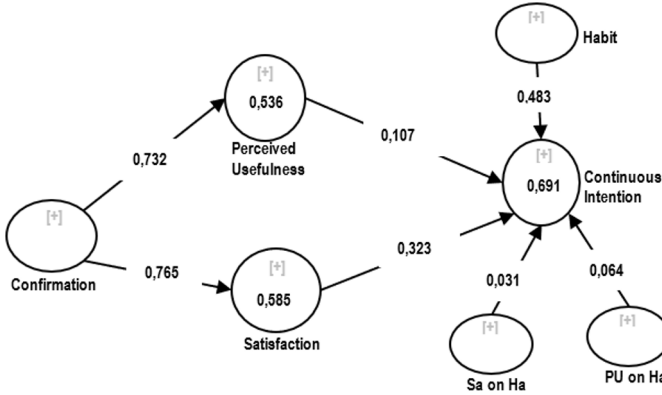


Fig. 3. Habit as moderator.

Model #4 describes habit as the dependent variable of the use of e-wallets. After re-using the e-wallet, making transactions using the e-wallet will become a habit without the user realizing it. All paths have a t-value higher than 1,645, namely the value of 1.831 for the relationship between perceived usefulness and continuous intention and 8.550 for the relationship between satisfaction and continuous intention. Finally, the relation between continuous intention and habit is 28,152. Habit has a determinant coefficient of 0.590, which means that continuous intention has an effect of 0.590 on habit (see Fig. 4).



Fig. 4. Habit as dependent variable.

4.3 Hypotheses Support

Table 3 lists the ten hypotheses and the results of the SEM bootstrapping calculation. All hypotheses were investigated based on the relationship between the four models studied. This study supports the hypothesis on: (1) the relationship of confirmation to perceived usefulness (H1a) and satisfaction (H1b), (2) the relationship of perceived usefulness to continuous intention (H2a), and satisfaction to continuous intention (H3a). While in hypothesis H2b, habit is not a mediator between perceived usefulness and continuous intention, habit is a complementary mediator between satisfaction and

continuous intention (H3b) [34]. In the moderator model, the calculation results show that habit does not have a moderator in relation to perceived usefulness and continuous intention (H4b), nor is there a moderator relationship between satisfaction and continuous intention (H4c). In opposite, there is a positive relationship between habit and continuous intention (H4a). While in the last model, there is a significant relationship between habit and continuous intention (H5).

Table 3. Hypotheses support.

Hypotheses	Model	Decision
H1a	#1, #2, #3, #4	Supported
H1b	#1, #2, #3, #4	Supported
H2a	#1, #2, #3, #4	Supported
H2b	#2	Non-mediation
H3a	#1, #2, #3, #4	Supported
H3b	#2	Complimentary Mediation
H4a	#1, #2, #3	Supported
H4b	#3	Not supported
H4c	#3	Not supported
H5	#4	Supported

4.4 Discussion

This study found that habit can be an antecedent of continuous intention because the relationship between the two is positive; this reinforces [8, 9, 34, 35]. Examined habit on the relationship between intention to re-use so that it becomes usage behaviour, but produced similar findings that showed usage behaviour is influenced by habit [9]. Meanwhile, that habit positively and significantly affects intentions to continue using information systems [34]. Slightly different research; in addition to stating that habit is one of the antecedents of continuous intention, his research also uses habit as a mediator [8, 35]. The mediating effect of perceived usefulness and intention continuous is stronger on satisfaction than habit [35]. Meanwhile, that habit enhances the between satisfaction and continuous intention, compared to attitude [8].

In research that used habit as a moderator, the majority focuses on the relationship between continuous intention and continuous usage. That habit significantly moderated the relationship between IS continuation intentions and IS continuous usage [9]. The same was expressed, who found that the moderating effect of habit on the connection between continuous Intention and behavior was a also significant [17].

This study, which focuses on the relationship between continuous intention and usage behaviour, also integrates the motivational idea [2, 9, 18]. So that the use of habit as a moderator can be applied to continuous intention, especially between perceived usefulness to continuous intention and satisfaction to continuous intention; surprisingly, it was found that the role of habit as a moderator between perceived usefulness and satisfaction with continuous intention was not found.

In the last model, which describes habit as a dependent variable, it is found that there is a significant value between continuous intention and habit. If this research is related it is logically acceptable since places habit as a variable between continuous intention and usage behavior [7,9]. The placement of habit as a successor of continuous intention is based on the function of ECM. ECM requires that users have experience at least once and evaluate the performance of the technology so that they decide to re-use it. It is related, which states that motivation can cause behaviour to become a habit, and perceived usefulness and satisfaction as predecessor continuous intention can be a motivation to make e-wallet transactions a habit [2].

5 Conclusion

This study figure it out the position of habit in e-wallet re-use. Besides repeated actions, habits can be formed from the motivation to use e-wallets. In this ECM model, perceived usefulness and satisfaction can motivate users to continue making e-wallet transactions into a habit. In sum, the habit significantly influences continuous intention in using e-wallets beyond satisfaction and perceived usefulness. This can happen to users who use e-wallets infrequent high use. Similar to previous research, the habit does not significantly affect continuous intention when rolling as a moderator for satisfaction and perceived usefulness. The same situation for habit as a mediator, there is no mediator for a relation between perceived usefulness and continuous intention, and there is only a complimentary mediation in the relationship between satisfaction and continuous intention. Lastly, a habit can act as the antecedents of continuous usage.

References

1. Rogers, E.M.: Diffusion of Innovations, 5th Edition. Simon and Schuster, America (2003).
2. Verplanken, B.: The Psychology of Habit: Theory, Mechanisms, Change, and Contexts. Springer, England (2018).
3. Widyanto, H.A., Kusumawardani, K.A., Septyawanda, A.: Encouraging Behavioral Intention to Use Mobile Payment: An Extension of UTAUT2. *Jurnal Muara Ilmu Ekonomi dan Bisnis*. **4**, 87 (2020). <https://doi.org/10.24912/jmieb.v4i1.7584>.
4. Rm.id Ekonomi Bisnis, <http://www.rm.id/baca>, last accessed 2021/6/25
5. Triandis, H.C: Values, attitudes, and interpersonal behavior. In Nebraska symposium on motivation. University of Nebraska Press. 1979
6. Ouellette, J.A., Wood, W.: Habit and intention in everyday life: The multiple processes by which past behavior predicts future behavior. *Psychological Bulletin*. **124**, 54–74 (1998). <https://doi.org/10.1037/0033-2909.124.1.54>.
7. Limayem, Hirt, Cheung: How Habit Limits the Predictive Power of Intention: The Case of Information Systems Continuance. *MIS Quarterly*. **31**, 705 (2007). <https://doi.org/10.2307/25148817>.
8. Amoroso, D., Lim, R.: The mediating effects of habit on continuance intention. *International Journal of Information Management*. **37**, 693–702 (2017). <https://doi.org/10.1016/j.ijinfomgt.2017.05.003>.

9. Limayem, M., Cheung, C.M.K.: Predicting the continued use of Internet-based learning technologies: the role of habit. *Behaviour & Information Technology*. **30**, 91–99 (2011). <https://doi.org/10.1080/0144929x.2010.490956>.
10. Apanasevic, T., Markendahl, J., Arvidsson, N.: Stakeholders' expectations of mobile payment in retail: lessons from Sweden. *International Journal of Bank Marketing*. **34**, 37–61 (2016). <https://doi.org/10.1108/ijbm-06-2014-0064>.
11. Qasim, A., Abu-Shanab, E.: Drivers of mobile payment acceptance: The impact of network externalities. *Information Systems Frontiers*. **18**, 1021–1034 (2015). <https://doi.org/10.1007/s10796-015-9598-6>.
12. Ajzen, I., Fishbein, M.: A Bayesian analysis of attribution processes. *Psychological Bulletin*. **82**, 261–277 (1975). <https://doi.org/10.1037/h0076477>.
13. Ajzen, I.: The theory of planned behavior. *Organizational Behavior and Human Decision Processes*. **50**, 179–211 (1991). [https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t).
14. Davis, F.D., Bagozzi, R.P., Warshaw, P.R.: User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*. **35**, 982–1003 (1989). <https://doi.org/10.1287/mnsc.35.8.982>.
15. Chatterjee, D., Bolar, K.: Determinants of Mobile Wallet Intentions to Use: The Mental Cost Perspective. *International Journal of Human-Computer Interaction*. **35**, 859–869 (2018). <https://doi.org/10.1080/10447318.2018.1505697>.
16. Kim, C., Li, W., Kim, D.J.: An Empirical Analysis of Factors Influencing M-Shopping Use. *International Journal of Human-Computer Interaction*. **31**, 974–994 (2015). <https://doi.org/10.1080/10447318.2015.1085717>.
17. Bhattacharjee, A., Lin, C.-P.: A unified model of IT continuance: three complementary perspectives and crossover effects. *European Journal of Information Systems*. **24**, 364–373 (2015). <https://doi.org/10.1057/ejis.2013.36>.
18. Islam, A.K.M.N., Mäntymäki, M., Bhattacharjee, A.: Towards a Decomposed Expectation-Confirmation Model of IT Continuance: The Role of Usability. *Communications of the Association for Information Systems*. **40**(1), 502–523 (2017). <https://doi.org/10.17705/1cais.04023>.
19. Liébana-Cabanillas, F., Ramos de Luna, I., Montoro-Ríos, F.: Intention to use new mobile payment systems: a comparative analysis of SMS and NFC payments. *Economic Research-Ekonomska Istraživanja*. **30**, 892–910 (2017). <https://doi.org/10.1080/1331677x.2017.1305784>.
20. Thong, J.Y.L., Hong, S.-J., Tam, K.Y.: The effects of post-adoption beliefs on the expectation-confirmation model for information technology continuance. *International Journal of Human-Computer Studies*. **64**, 799–810 (2006). <https://doi.org/10.1016/j.ijhcs.2006.05.001>.
21. Hoehle, H., Venkatesh, V.: Mobile application usability. *MIS quarterly*, **39**(2), 435–472 (2015)
22. Oliver, R.L.: A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*. **17**, 460 (1980). <https://doi.org/10.2307/3150499>.
23. Zhou, T.: An empirical examination of continuance intention of mobile payment services. *Decision Support Systems*. **54**, 1085–1091 (2013). <https://doi.org/10.1016/j.dss.2012.10.034>.
24. Zhou, T.: An empirical examination of continuance intention of mobile payment services. *Decision Support Systems*. **54**, 1085–1091 (2013). <https://doi.org/10.1016/j.dss.2012.10.034>.
25. Bamberg, S., Ajzen, I., Schmidt, P.: Choice of Travel Mode in the Theory of Planned Behavior: The Roles of Past Behavior, Habit, and Reasoned Action. *Basic and Applied Social Psychology*. **25**, 175–187 (2003). https://doi.org/10.1207/s15324834basps2503_01.

26. Lin, C., Lekhawipat, W.: Factors affecting online repurchase intention. *Industrial Management & Data Systems*. **114**, 597–611 (2014). <https://doi.org/10.1108/imds-10-2013-0432>.
27. Bhattacherjee, A.: Understanding Information Systems Continuance: An Expectation-Confirmation Model. *MIS Quarterly*. **25**, 351 (2001). <https://doi.org/10.2307/3250921>.
28. Hair, J.F., Sarstedt, M., Ringle, C.M.: Rethinking some of the rethinking of partial least squares. *European Journal of Marketing*. **53**, 566–584 (2019). <https://doi.org/10.1108/ejm-10-2018-0665>.
29. Hair, J.F., Risher, J.J., Sarstedt, M., Ringle, C.M.: When to use and how to report the results of PLS-SEM. *European Business Review*. **31**, 2–24 (2019). <https://doi.org/10.1108/ebr-11-2018-0203>.
30. Garson, G.D.: Partial least squares. Regression and structural equation models. North Carolina 2016
31. Sarstedt, M., Ringle, C.M., Hair, J.F.: Partial least squares structural equation modeling. In *Handbook of market research*, pp. 587-632. Cham: Springer International Publishing (2021)
32. Hair, J.F., Jr., Howard, M.C., Nitzl, C.: Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*. **109**, 101–110 (2020). <https://doi.org/10.1016/j.jbusres.2019.11.069>.
33. Hair, J.F., Jr., Howard, M.C., Nitzl, C.: Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*. **109**, 101–110 (2020). <https://doi.org/10.1016/j.jbusres.2019.11.069>.
34. Zhao, X., Lynch, J.G., Jr., Chen, Q.: Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*. **37**, 197–206 (2010). <https://doi.org/10.1086/651257>.
35. Lai, P.C.: Design and Security impact on consumers' intention to use single platform E-payment. *Interdisciplinary Information Sciences*. **22**, 111–122 (2016). <https://doi.org/10.4036/iis.2016.r.05>.
36. Hsiao, C.-H., Chang, J.-J., Tang, K.-Y.: Exploring the influential factors in continuance usage of mobile social Apps: Satisfaction, habit, and customer value perspectives. *Telematics and Informatics*. **33**, 342–355 (2016). <https://doi.org/10.1016/j.tele.2015.08.014>.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

