Determinants of Behavioral Intention To Use Digital Wallet (A Study in GoPay Users in Malang)

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ABSTRACT
The use of cellular technology provides an opportunity to apply technology in modifying consumer behavior. The purpose of this analysis is to understand digital literacy and technology experience which contribute to behavioral intentions to use digital wallet. This study aims to develop a framework outside the technology acceptance model (TAM). We hypothesize that digital literacy and technology experience have effect to behavioral intention. The sample used to be GoPay users in Malang. This study uses the Partial Least Square Structural Equation Modeling (PLS-SEM) to test causality in the proposed model. These identified factors require to be substantiated in this context.

Keywords—digital wallet, digital literacy, technology experience, TAM, behavioral intention

1. INTRODUCTION
The emerging technologies in the 4.0 industrial revolution have rapidly transformed the way individuals live and work. Financial technology (fintech) is a new innovation, combining financial services with modern technology [1]. Digital banking includes internet banking, mobile banking, SMS banking and digital wallets which are operating in the country [2]. The National Digital Research Center (NDRC) states that financial technology is a new innovation combined between financial services and modern technology [1]. Mobile payment services are increasingly popular and competition in digital wallets (e-wallet) is getting tougher. Many choices of e-wallet applications that can be used without using a card in the transaction. Local e-wallet applications become famous for cashless solutions in Indonesia. The amount of digital wallet transactions in Indonesia is quite large, which is around to USD 1.5 billion in 2018 and in 2023 are predicted to increase to USD 25 billion [3].

Davis's research projects the TAM model and suggests that user impulse can be explained by 3 factors, namely perceived usefulness, perceived ease of use, and attitude towards [4]. [5] suggested that perceived ease of use has a positive impact on perceived usefulness. According to [6] perceived ease of use has a relationship on behavioural intention with the use of technology. According to [7], the more people see this technology as easily operated, they will have a positive intention to purchase.

Digital literacy has been appearing in almost every aspect of our daily lives [8]. Behavioral intention to use technology can be predicted from digital literacy [9]. Findings from SEM technique revealed technology attitude and technology experience to be significant predictors of rule intentions [10]. Technology experience describes the amount of exposure that user has obtained by the interaction of a particular technology [11]. [12] found that individual technology experience to determine usage intentions. Similar results were obtained by [13] as well as [14].

2. LITERATURE REVIEW

2.1. Technology Acceptance Model
According to [15], Technology Acceptance Model (TAM) is recommended by users offered to use the new system, which determines the factors that determine how and when to use the system. [16] revealed that TAM discusses psychological theories to explain information technology users based on user beliefs, attitudes, interests, and relationships. According to [17], TAM appeared, there was a theory known as Reasened Action (TRA) Theory developed by [18].

2.2. Digital Literacy
Digital literacy has been appearing in almost every aspect of our daily lives [8]. [19] explains digital literacy as a set of fundamental skills needed for working with digital media, information processing, and retrieval. [20] describes as the ability to utilize information and communication technology in finding, organizing, creating, and communicating information that have need technical and cognitive skills.
2.3. Technology Experience

Technology experience also plays the important role with acceptance of technology [23]. An individual’s technology experience is individual’s vulnerability to the technology as well as the abilities and skills using a technology [24]. Copious experiences with technology are likely to generate a high belief of self-efficacy [25].

2.4. Attitude

Attitude is not a behavior, but attitude presents a preparedness for actions that lead to behavior [16]. Attitude is a tendency to react to a thing, person or object with likes, dislikes or indifferent [26], [27] states that attitude assessment is a complex activity because it is associated with values that are difficult to measure. It is an individual’s overall affective reaction to using a arrangement [28],[29]. [30] state that attitude is a description that reflects the consistency of someone's likes or dislikes for an object.

2.5. Behavioral Intention

According to [31], behavioral intention is buyers frequency or proportion of total purchases who are loyal to a specific brand. It is a measure or level of intensity of an individual's intention to take a specific action [18]. It can be measure from perceived expectancy, effort expectancy, perceived risk, social influence, price, and trust [32], [33],[34]. This concept is refers to the possibility of customers repurchases to the company services they have used, or spreading good information about the company to others [35],[36]. This action results from customer satisfaction [37]. On the contrary, dissatisfaction customers bring about negative effect on behavioral intention [38]. Several studies [39], found that the value of experience encourages positive behavior intention, the integration of constructing experiences will influence positive behavior intention. Research evidence from [40],[41],[42],[43] reveal the construct to be antecedent of behavioral intention; an assertion earlier disputed by [44].

3. RESEARCH HYPOTHESIS

3.1. Relationship Digital Literacy and Behavioral Intention

Results of research conducted by [9] and [45] shows that digital literacy influences behavioral intention. From the literature, it has a significant relationship with the adoption of new technologies [46].

3.2. Relationship Technology Experience and Behavioral Intention

Research conducted by [10] shows that technology attitude and technology experience are the main determining factors in behavioral intention. [12] found that individual computer technology experience to determine user intentions. Similar results were obtained from [13],[14].

3.3. Relationship Digital Literacy, Attitude, and Behavioral Intention

[45] identified several things that affect behavioral intention, namely digital literacy and attitude toward using digital technology. [47] also states that the matter of digital literacy assessment is not only related to the functional problem of learning how to use a computer and keyboard, or how to do an online search. [48] show that attitude is an important factor that influences behavioral intention in technology acceptance. Based on previous studies as previously described, a propose a theoretical framework that integrates the digital literacy, technology experience, attitude, and behavioral intention in figure 1.

![Proposed Theoretical Framework](image)

4. METHODOLOGY

This study use non-probability sampling with a purposive sampling approach. The population is GoPay users in Malang. Sample of this study is GoPay users in Malang who have met...
the predetermined criteria including respondents aged 17-50 years, have a GoPay application, and have transacted using GoPay more than twice. Determination of the number of research respondents is based on the rule of thumb stated by [49]. The measurement scale uses a Likert Scale. The questionnaire will be analyzed using Structural Equation Modeling with the help of SmartPLS Applications 3.0.

5. CONCLUSION

The relationship of digital literacy and technology experience to behavioral intention only proposed a theoretical model. Empirical investigations are also needed to verify the effects of digital literacy and technology experience to behavioral intention. Future qualitative or quantitative studies and another sampling technique might reveal some further insights. For further studies need detailed treatment of the relationships every constructs.

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REFERENCES

[1] Hadi, F. 2017. “Penerapan Financial Technology (FinTech) sebagai Inovasi Pengembangan Keuangan Digital di Indonesia.” (accessed on 1 October 2019). http://temilnas16.forsebi.org/penerapan-financial-technologyfintech-sebagai-inovasi-pengembangan-keuangan-digital-di-indonesia/

[2] Jani, D., and Han, H. 2011. Investigating the key factors affecting behavioral intentions. International Journal of Contemporary Hospitality Management, 23(7), 1000–1018. DOI: 10.1108/09596111111167579.

[3] Devita, Vivin Dian. 2019. Siapa Aplikasi E-wallet dengan Pengguna Terbanyak di Indonesia? https://iprice.co.id/trend/insights/e-walletterbaik-di-indonesia/ (accessed on 5 August 2019).

[4] Dulloo, R., Mokashi, J., & Puri, M. M. (2015). Exploring Technology Acceptance Theories and Models - A Comparative Analysis. MIT-SOM PGRC KJIMRP 1st International Conference, 308–317.

[5] Cheng, B., Wang, M., Yang, S. J. H., Kinshuk, & Peng, J. (2011). Acceptance of competency-based workplace e-learning systems: Effects of individual and peer learning support. Computers & Education, 57, 1317–1333.

[6] Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-graph: Tutorial and annotated example. Communications of the Association for Information Systems, 16, 91–109.

[7] Juniati. 2014. “Influence of Perceived Usefulness , Ease of Use , Risk on Attitude and Intention to Shop Online.” European Journal of Business and Management 6 (27): 218–29.

[8] Çam, Emre and Kiyici, Mübın. 2017. Perceptions of Prospective Teachers on Digital Literacy. December 1997 MIS Quarterly 21(4):389-400. DOI: 10.2307/249720.

[9] Mac Callum, K., Jeffrey, L., & Kinshuk. 2014. Factors Impacting Teachers’ Adoption of Mobile Learning. Journal of Information Technology Education: Research, 13, Retrieved from http://www.jite.org/documents/Vol13/JITEv13ResearchP141-162MacCallum0455.pdf.

[10] Bervell, Brandford and Umar, Irfan Naufal. 2018. Utilization decision towards LMS for blended learning in distance education: Modeling the effects of personality factors in exclusivity. Knowledge Management & E-Learning, Vol.10, No.3.

[11] Willis, T. J. 2008. An evaluation of the technology acceptance model as a means of understanding online social networking behaviour. Doctoral dissertation, University of South Florida, USA.

[12] De Smet, C., Bourgonjon, J., De Wever, B., Schellens, T., & Valcke, M. 2012. Researching instructional use and the technology acceptance of learning management systems by secondary school teachers. Computers & Education, 58(2), 688–696.

[13] Usoro, A., Echeng, R., & Majewski, G. 2014. A model of acceptance of Web 2.0 in learning in higher education: A case study of two cultures. E-Learning and Digital Media, 11(6), 644–653.

[14] Tiew, S. L. 2014. Instructor’s perspectives on the critical success factors of learning management system (LMS) implementation in higher learning institutions. Doctoral dissertation, Universiti Tunku Abdul Rahman, Malaysia.

[15] Monalis, S and Setia, P. 2016. Analisis Penerimaan Sistem Informasi Pengolahan Data Statistik Rutin (SISR ) Menggunakan Metode Technology Acceptance Model (Studi Kasus:
[16] Lubis, Adyanata. 2014. Evaluasi Tingkat Penerimaan Sistem Informasi Layanan Pengadaan Secara Elektronik Oleh Pengusaha Menggunakan Metode Tecnology Acceptance Model (TAM). Jurnal Ilmiah Fakultas Ekonomi. Vol. 3 No.2.

[17] Fatmawati, E. 2015. Technology Acceptance Model (TAM) Untuk Menganalisis Penerimaan Terhadap Sistem Informasi Perpustakaan, 0(1), 1–13.

[18] Ajzen, I. & Fishbein, M. 1980. Understanding attitudes and predicting social behavior. Englewood Cliffs: Prentice-Hall.

[19] UNESCO Institute for Information Technologies in Education. 2011. Digital Literacy in Education. Policy Brief, May 2011. http://unesdoc.unesco.org/images/0021/002144/214485e.pdf

[20] Chanchinmawia, F and Verma, Manoj Kumar. 2018. Assessment of Information Literacy Skills among Research Scholars of Mizoram University:A Study. International Journal of Library and Information Studies Vol.8(1) Jan-Mar, 2018 ISSN: 2231-4911.

[21] Hague, Cassie and Payton, Search. 2010. Digital literacy across the curriculum. Futurelab Innovation in Education. www.futurelab.org.uk

[22] Ng, W. 2012. “Can we teach digital natives digital literacy?” Computers & Education 59 (3), 10651078.

[23] Venkatesh, V., & Davis, F. D. 2000. A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science, 46, 186-204. doi:10.1287/mnsc.46.2.186.11926.

[24] Buabeng-Andoh, C. 2012. Factors influencing teachers' adoption and integration of information and communication technology into teaching: A review of the literature. International Journal of Education and Development using Information and Communication Technology 8 (1), 136-155.

[25] Elbitar, H. M. M. 2015. Egyptian industrial education teachers’ perceived computer self efficacy. International Journal of Vocational and Technical Education, 7 (8), 80–88.

[26] Venkatesh, V., M. G. Morris, G. B. Davis and F. D. Davis. 2003. “User acceptance of information technology: Toward a unified view.” MIS Quarterly 27 (3), 425-478.

[27] Kotler, Amstrong . 2010. Principles Of Marketing. 13 Edition. New Jersey . Upper Saddle River: Pearson Prentice Hall.

[28] Thomson MW, et al. 2006. A conserved tyrosine residue of Saccharomyces cerevisiae leucotriene A4 hydrolase stabilizes the transition state of the peptidase activity. Peptides 27(7):1701-9

[29] Sabri, M. Alisuf. 2010. Psikologi Pendidikan Berdasarkan Kurikulum Nasional. Jakarta: Pedoman Ilmu Jaya.

[30] Kusaeri, K. 2019) Penilaian Sikap Dalam Pembelajaran Matematika. JPM: Jurnal Pendidikan Matematika, 5(2), 61-70.

[31] Schifffman, L. and Kanuk, L.L. 2010. Consumer Behavior. 10th Edition. New Jersey: Pearson Prentice Hall.

[32] Ajzen, Iecck and Fishbein, Martin, 2011. Attitude and the Attitude-Behavior Relation: Reasoned and Automatic Processes, European Review of Social Psychology, Vol. 11 (1), page 1-33.

[33] Amoroso, Donald L. and Watanabe, Reny Magnier, 2012. Building a Research for Mobile Wallet Consumer Adaption: The Case of Mobile Suica in Japan, Journal of Theorical and Applied Electronic Commerce Research, Vol. 7 (1), page 94-110.

[34] Schierz, P.G., Schilke, O. and Wirtz, B.W. 2010. Understanding consumer acceptance of mobile payment services: an empirical analysis, Electronic Commerce Research and Applications, Vol. 9 (3), page 209-216.

[35] Madan, Khushbu and Yadav, Rajan. 2016. Behavioral Intention to Adopt Mobile Wallet: A Developing Country Perspective, Journal of Indian Business Research, Vol. 8 (3), page. 227-244.

[36] Othman, Z., Zahari, M. S. M. and Radzi, S.M. 2013. Customer behavioral intention: influence of service delivery failures and service recovery in Malay restaurants. Procedia-Social and Behavioral Sciences, 105, page. 115-121.

[37] Wu, H.-C. 2014. The effects of customer satisfaction, perceived value, corporate image and service quality on behavioral intentions in gaming establishments. Asia Pacific Journal of Marketing
and Logistics, 26(4), page 540–565. https://doi.org/10.1108/APJML-03-2014-0049.

[38] Kitapci, O., Akdogan, C. and Dortyol, I.T. 2014. The impact of service quality dimensions on patient satisfaction, repurchase intentions and word-of-mouth communication in the public healthcare industry”, Procedia-Social and Behavioral Sciences, 148, August, page 161-169.

[39] Chen, C.F. and Chen, F.S. 2010. Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists. Tourism Management, 31(1), page 29-35.

[40] Thomas, T. D., Singh, L., & Gaffar, K. 2013. The utility of the UTAUT model in explaining mobile learning adoption in higher education in Guyana. International Journal of Education and Development using Information and Communication Technology (IJEDICT), 9(3), 71–85.

[41] Dlalisa, S. 2017. Acceptance and usage of learning management system amongst academics. In Proceedings of the Conference on Information Communication Technology and Society (ICTAS). doi: 10.1109/ICTAS.2017.7920525.

[42] Boateng, R., Mbrokoh, A. S., Boateng, L., Senyo, P. K., & Ansong, E. 2016. Determinants of e-learning adoption among students of developing countries. The International Journal of Information and Learning Technology, 33(4), 248–262.

[43] El-Gayar, O., & Moran, M. 2016. College students’ acceptance of tablet PCs: An application of the UTAUT model. In Proceedings of the Annual Meeting of the Decision Sciences Institute (pp. 2845–2850). San Antonio, USA.

[44] Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. 2003. User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3), 425–478.

[45] Nikou, Shahrokh; Brännback, Malin; and Widén, Gunilla. 2019. The Impact Of Digitalization On Literacy: Digital Immigrants Vs. Digital Natives. Association for Information Systems AIS Electronic Library (AISeL). ECIS 2019 Proceedings.

[46] Hasan, B., & Ahmed, M. U. 2010. A path analysis of the impact of application-specific perceptions of computer self-efficacy and anxiety on technology acceptance. Journal of Organizational and End User Computing, 22(3), 82-95. doi:10.4018/joeuc.2010070105.

[47] Buckingham, D. 2010. Defining Digital Literacy. Medienbildung in neuen Kulturraumen. 59-71.

[48] Alghamdi, S. R., & Bayaga, A. 2016. Use and attitude towards learning management systems (LMS) in Saudi Arabian universities. Eurasia Journal of Mathematics, Science & Technology Education, 12(9), 2309–2330.

[49] Hair, J.F., Hult, G.T.M., Ringle, C. M. and Sarstedt, M. 2014. A Primer on Partial Least Squares Structural Equation Modeling, Sage, Thousand Oaks, CA.