

IDENTIFICATION OF FACTORS AFFECTING TECHNOLOGY ACCEPTANCE OF CONTINUITY INTENTIONS OF MOBILE WALLET SERVICE USERS

NOVIE SUSANTI SUSENO*

Accounting Department, Economic Faculty, Universitas Garut, Garut.
Corresponding Author Email : noviesusanti@uniga.ac.id

HILMI AULAWI

Institut Teknologi Garut, Garut.

Abstract

Mobile wallets are already popular among the public, but the awareness and intensity of use by the millennial generation is still relatively low. This study aims to determine the factors that influence technology acceptance of the intention to continue using mobile wallet services. This research adds three variables, namely the variable trust, perceived risk, and perceived security. In this study the population used as a sample of 250 respondents. The author uses primary data by distributing questionnaires to Go-Pay users in Garut Regency and conducting interviews with Go-Pay users and psychologists. The research method used is the UTAUT 2 Framework approach with library study data collection techniques, questionnaires, and field research, while the data processing technique uses multiple linear regression and the coefficient of determination with the help of software. Based on the results of research conducted by the authors, it shows that habit has the most significant influence, followed by trust, perceived security, hedonic motivation, facilitating conditions, social influence performance expectancy, price value, and perceived risk. Meanwhile, effort expectancy does not affect the continuance intention of using a mobile wallet.

Keywords: Trust, Perceived Risk; Perceived Security; Continuance Intention; Mobile Wallets

JEL Code: D13, I31, J22, K31

INTRODUCTION

The increasing development of internet technology is bringing social change to society (Fauzi et al., 2018). Technology has become part of people's daily needs, and one of the advantages of technology is the emergence of mobile applications that make it easy to access information (Ispriandina & Sutisna, 2019).

Mobile applications are developing along with the rapid growth of internet users, which have reached 212,354,070 people (Internetworldstats, 2021). The presence of the internet and mobile applications produces mobile payment applications (Ispriandina & Sutisna, 2019) which enable new functions for mobile devices to support financial services (Indah & Agustin, 2019). One of the financial service instruments currently accommodated by the fintech industry is the use of mobile payments (Adiatama & Lestari, 2020) which plays an important and central role in electronic payments (Filona & Misdiyono, 2019).

The use of e-money is also faster, more practical and free of fees during transactions (Tee & Ong, 2016 ; Alfaansi & Daulay, 2021) so that mobile payment services attract consumers to pay for a product or service done mobile (Widyanto et al., 2020). GoPay is the most popular digital wallet/mobile wallet in Indonesia. Based on the results of the DailySocial survey, as many as 87% of respondents use GoPay (Lidwina, 2020). GoPay users have several advantages such as discounts, Go-Points, Tokens, and vouchers (Indrawati & Putri, 2018). The more customers benefit from a system, the more likely users are to adopt the system (Goh et al., 2014).

In July 2021 the value of electronic transactions reached IDR 25.4 trillion. An increase of 5% compared to the previous month of Rp 24.1 trillion. However, the volume of transactions with electronic money has actually decreased, as many as 415.2 million transactions occurred in July 2021, 6.5% lower than in June 2021 of 444.3 million transactions (Annur, 2021).

Even though mobile wallets have gradually become popular among the public (Ispriandina & Sutisna, 2019), awareness and intensity of use by millennial is still relatively low (Alfansi & Daulay, 2021). The factors influencing continuance intentions are still unclear (Ispriandina & Sutisna, 2019). Transactions using electronic money not only help achieve economic stability (Evan et al., 2021), but are in line with Bank Indonesia regulations that create the National Non Cash Movement (GNNT) which will create a cashless society ecosystem.

Through the mobile wallet service, people can make transaction payments anytime, anywhere using smartphones, internet networks, and server-based electronic money (Indah & Agustin, 2019 ; Usman, 2017) which is simple, because it does not require authorization such as a pin or signature and does not need to be a bank customer (Evan et al., 2021).

With so many mobile wallet users, companies must understand the needs and desires of consumers (Ispriandina & Sutisna, 2019) so that they can form continuance intentions which are key factors to encourage sustainable development (Han et al., 2018).

This study was adapted from research (Ispriandina & Sutisna, 2019) which aims to determine the factors that influence technology acceptance of the intention of continuity of users of mobile wallet services based on construct identification of technology acceptance variables in UTAUT2 by adding 3 important and necessary variables. By conducting this research, the factors that influence technology acceptance of continuity intentions can be measured.

LITERATURE REVIEW

Continuance intention and behavioral intention have the same meaning, namely testing the continuous use of technology over a long period of time (Venkatesh et al., 2012). There are several models developed to explain the factors that influence individual acceptance of a technology. The Unified Theory of Acceptance and Use of Technology (UTAUT) model is an enhanced model of the Technology Acceptance Model (TAM) model which consists of several constructs, including: performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit (Venkatesh et al., 2012). In this study, 3 constructs were added, namely trust, perceived risk, and perceived security.

The development of electronic-based payment systems has influenced the emergence of various innovations in payment systems (Usman, 2017), such as technology in the form of mobile wallet applications that are currently being developed and widely used by the public, mobile wallets are one of the most convenient payment facilities (Megadewandanu et al., 2017). Mobile wallets help manage payment information and view user transactions and provide a pleasant shopping experience (Ispriandina & Sutisna, 2019).

Venkatesh et al., (2012) explained that perceived benefits, relative benefits, expected results, and extrinsic motivation are part of performance expectancy. Effort expectancy provides convenience/convenience associated with technology, which plays an important role in determining customer intentions to use technology (Alalwan et al., 2018), effort expectancy is also understood as the minimum level of effort in using technology (Widyanto et al., 2020).

Based on the UTAUT model in the context of a mobile wallet, social influence is associated with the extent to which a person perceives other people that the new system must be used (Venkatesh et al., 2012 ; Widyanto et al., 2020) . Social influence is seen as family, friends, influencing users to use a mobile wallet (Alfansi & Daulay, 2021).

To adopt a mobile wallet, one needs skills, a smartphone, internet connection, and security (Alfansi & Daulay, 2021). Then, the level at which a person believes that technical and infrastructure can be measured by facilitating conditions (Solekah & Hilmawan, 2021) and support systems support usage (Lim et al., 2019). The better the facilities offered, the higher the individual's desire to use and accept technology (Baptista & Oliveira, 2015 ; Alfansi & Daulay, 2021).

Hedonic motivation is fundamental to experience and behavior (Widyanto et al., 2020), referring to the level of pleasure obtained from using a mobile wallet (Venkatesh et al., 2012). People care not only about the performance but also the feelings created from using it (Megadewandanu et al., 2017). If the hedonic motivation in using a mobile wallet is high, the overall benefits felt by using the technology will increase and will contribute to performance expectancy and price value (Venkatesh et al., 2012 ; Alalwan et al., 2018).

Users need to bear the costs of the technology used (Ispriandina & Sutisna, 2019), price value is said to be a cognitive exchange between the perceived benefits of mobile banking services and the costs of using them (Venkatesh et al., 2012), including factors such as costs operators, internet fees, service fees, and transaction fees (Baptista & Oliveira, 2015).

The strongest factor influencing the behavioral intention to use mobile wallets in Indonesia is habit (Megadewandanu et al., 2017). Habits reflect various outcomes from previous experiences (Baptista & Oliveira, 2015). Another factor that influences continuance intention in using technology is trust, trust is a crucial determinant in assessing user acceptance of new technology (Sharma & Sharma, 2019 ; Alfansi & Daulay, 2021). Trust has an impact on the adoption of various services, such as online transactions (Widyanto et al., 2020). Users must build trust to reduce risk (Yu et al., 2018).

Perceived security can measure the extent to which people believe that using technology or services in certain applications is safe (Phan et al., 2020) because it relates to payers and payees (Slade et al., 2015). Security is also a challenge in building a mobile payment system to encourage consumers to use applications (Widyanto et al., 2020).

Unlike other constructs, perceived risk is perceived as an obstacle to customers' desire to adopt new technologies (Slade et al., 2015). Customers also consider risk perceptions in deciding to use online transactions (Piarna et al., 2020). Perceived risk is mentioned as the possibility that customers will suffer losses from using technology (Alalwan et al., 2018). The higher the user's perception of security, the lower the perceived risk of using it, so that consumers are willing to use technology (Widyanto et al., 2020). Based on this description, the following hypotheses can be developed:

- H₁: Performance expectancy has a significant positive effect on Continuance intention mobile wallet users.
- H₂: Effort Expectancy has a significant positive effect on Continuance intention mobile wallet users.
- H₃: Social Influence has a significant positive effect on Continuance intention mobile wallet users.
- H₄: Facilitating Condition has a significant positive effect on Continuance intention mobile wallet users.
- H₅: Hedonic Motivation has a significant positive effect on Continuance intention mobile wallet users.
- H₆: Price Value has a significant positive effect on Continuance intention mobile wallet users.
- H₇: Habit has a significant positive effect on Continuance intention mobile wallet users.
- H₈: Trust has a significant positive effect on Continuance intention mobile wallet users.
- H₉: Perceived Risk has a significant positive effect on Continuance intention mobile wallet users.
- H₁₀: Perceived Security has a significant positive effect on Continuance intention mobile wallet users.

METHODS

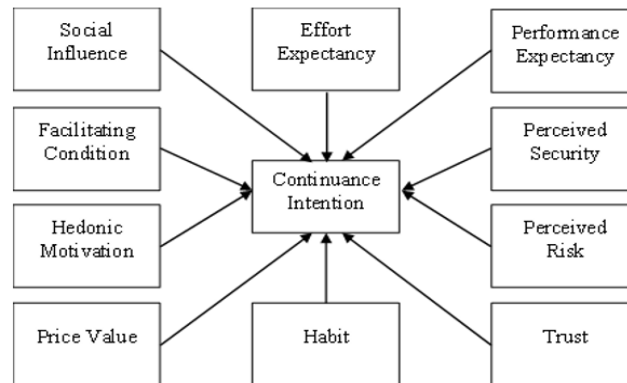


Figure 1: Research Framework

The method used in this study refers to research that was developed to explain the factors that influence individual acceptance of a technology by using the Unified Theory of Acceptance and Use of Technology (UTAUT) model which is refined from the Technology Acceptance Model (TAM) model. The constructs measured include: performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit (Venkatesh et al., 2012). By adding 3 variables, trust, perceived risk, and perceived security.

Purposive sampling and multiple regression analysis were used as sampling techniques and data analysis. In this study, the sample that can be used is 250 samples. This research is designed to focus on individuals who can be classified as mobile wallet users with an age range of 18-35 years.

Table 1: Validity Test and Reliability Test

Variable	Outer Loading	r table	Variable	Outer Loading	Cornbach's Alpha
Performance Expectancy (PE)	0.283	0.123	Performance Expectancy (PE)	0.924	0.70
Performance Expectancy (PE)	0.571	0.123			
Performance Expectancy (PE)	0.457	0.123			
Performance Expectancy (PE)	0.589	0.123			
Performance Expectancy (PE)	0.218	0.123			
Effort Expectancy (EE)	0.342	0.123	Effort Expectancy (EE)	0.878	0.70
Effort Expectancy (EE)	0.237	0.123			
Effort Expectancy (EE)	0.275	0.123			
Effort Expectancy (EE)	0.313	0.123			
Social Influence (SI)	0.556	0.123	Social Influence (SI)	0.818	0.70
Social Influence (SI)	0.505	0.123			
Social Influence (SI)	0.367	0.123			
Social Influence (SI)	0.260	0.123			
Social Influence (SI)	0.628	0.123			
Social Influence (SI)	0.628	0.123			
Facilitating Conditions (FC)	0.146	0.123		0.788	0.70

Variable	Outer Loading	r table	Variable	Outer Loading	Cornbach's Alpha
Facilitating Conditions (FC)	0.335	0.123	Facilitating Conditions (FC)		
Facilitating Conditions (FC)	0.279	0.123			
Facilitating Conditions (FC)	0.175	0.123			
Facilitating Conditions (FC)	0.633	0.123			
Hedonic Motivation (HM)	0.612	0.123	Hedonic Motivation (HM)	0.962	0.70
Hedonic Motivation (HM)	0.559	0.123			
Hedonic Motivation (HM)	0.283	0.123			
Hedonic Motivation (HM)	0.571	0.123			
Hedonic Motivation (HM)	0.457	0.123			
Price Value (PV)	0.589	0.123	Price Value (PV)	0.882	0.70
Price Value (PV)	0.218	0.123			
Price Value (PV)	0.342	0.123			
Price Value (PV)	0.146	0.123			
Price Value (PV)	0.335	0.123			
Habits (H)	0.279	0.123	Habits (H)	0.956	0.70
Habits (H)	0.175	0.123			
Habits (H)	0.633	0.123			
Habits (H)	0.612	0.123			
Habits (H)	0.599	0.123			
Trust (T)	0.283	0.123	Trust (T)	0.812	0.70
Trust (T)	0.571	0.123			
Trust (T)	0.458	0.123			
Trust (T)	0.590	0.123			
Trust (T)	0.219	0.123			
Perceived Risk (PR)	0.343	0.123	Perceived Risk (PR)	0.798	0.70
Perceived Risk (PR)	0.238	0.123			
Perceived Risk (PR)	0.257	0.123			
Perceived Risk (PR)	0.313	0.123			
Perceived Risk (PR)	0.556	0.123			
Perceived Security (PS)	0.505	0.123	Perceived Security (PS)	0.861	0.70
Perceived Security (PS)	0.367	0.123			
Perceived Security (PS)	0.261	0.123			
Perceived Security (PS)	0.628	0.123			
Perceived Security (PS)	0.621	0.123			
Continuance Intention (CI)	0.164	0.123	Continuance Intention (CI)	0.873	0.70
Continuance Intention (CI)	0.335	0.123			
Continuance Intention (CI)	0.279	0.123			
Continuance Intention (CI)	0.178	0.123			
Continuance Intention (CI)	0.635	0.123			
Continuance Intention (CI)	0.612	0.123			
Continuance Intention (CI)	0.599	0.123			

Table 1 shows the results of the validity test in the evaluation of the measurement model showing an r table value of more than 0.123, so the data is declared valid. Then in the reliability test, the results showed that each variable had Cornbach's Alpha > 0.70 so that it was declared reliable.

RESULT AND DISCUSSION

Table 2: Multiple Linear Regression

Hypothesis	t Statistic	Significance	Results
Performance Expectancy affects mobile wallet usage	4,838	0.019	Received
Effort Expectancy affects mobile wallet usage	1,769	0.368	Rejected
Social Influence affects the use of mobile wallets	35,542	0.017	Received
Facilitating Conditions affect the use of mobile wallets	23.134	0.012	Received
Hedonic Motivation influences the use of mobile wallets	18,664	0.004	Received
Price Value affects the use of mobile wallets	19,717	0.020	Received
Habit affects the use of mobile wallets	23,150	0.000	Received
Trust affects the use of mobile wallets	1,446	0.001	Received
Perceived Risk affects the use of mobile wallets	35,542	0.034	Received
Perceived Security affects mobile wallet usage	23.134	0.001	Received

Table 3: Multiple Regressions

Model	R	R Square	Adjusted R Square	std. Error of the Estimate
1	.896 ^a	.891	.791	.19608

An independent variable is said to be influential if t statistic > t table and is said to be significant if the significance is less than 0.05. T table in this study was 1.969 so that the variable Effort Expectancy (EE) was rejected because t statistic < t table and significance > 0.05.

The results of the study show that the model can affect continuance intention by 89% and the rest is influenced by other factors beyond technology acceptance. Based on the research results, it is known that performance expectancy, social influence, facilitating condition, hedonic motivation, price value, habit, trust, perceived risk, and perceived security affect the continuance intention to use a mobile wallet, while effort expectancy does not affect the continuance intention to use a mobile wallet. This study improves the results of research conducted by Putri & Mahendra (2017) and Widyanto et al., (2020) by adding 3 variables in the research conducted, namely the variables trust, perceived risk, and perceived security studied in this study. However, besides the advantages, this research has a weakness, namely the lack of research objects.

CONCLUSION AND SUGGESTION

The mobile wallet application is already popular among the public, but the awareness and intensity of use by the millennial generation is still relatively low. The results showed that habit has the most significant influence, followed by trust, perceived security, and hedonic motivation, facilitating conditions, social influence performance expectancy, price value and perceived risk. Meanwhile, effort expectancy does not affect the continuance intention of using a mobile wallet. Based on the research results, for business practitioners, including service providers, they must improve security, add new features, and provide promos and discounts so as to attract more users. For further research, you can add other factors that influence the continuance intention of using a mobile wallet.

References

1. Adiatama, M. H., & Lestari, D. T. (2020). Persepsi Milenial Terhadap Layanan Mobile Payment Di Indonesia Dengan Menggunakan Pendekatan Technology Acceptance Model (TAM) Millennial ' s Perception Of Mobile Payment Services In Indonesia With Technology Acceptance Model (TAM) Approach. E-Proceeding of Management, 7(2), 4190–4205.
2. Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Algharabat, R. (2018). Examining factors influencing Jordanian customers' intentions and adoption of internet banking: Extending UTAUT2 with risk. *Journal of Retailing and Consumer Services*, 40, 125–138. <https://doi.org/10.1016/j.jretconser.2017.08.026>
3. Alfansi, L., & Daulay, M. Y. I. (2021). Factor affecting the use of e-money in millennial generation: Research model UTAUT 2. *Jurnal Manajemen Dan Pemasaran Jasa*, 14(1), 109. <https://doi.org/10.25105/jmpj.v14i1.8212>
4. Annur, C. M. (2021). Nilai Transaksi Uang Elektronik Capai Rp 204,9 Triliun pada 2020. <https://databoks.katadata.co.id/datapublish/2021/02/11/nilai-transaksi-uang-elektronik-capai-rp-2049-triliun-pada-2020>
5. Baptista, G., & Oliveira, T. (2015). Understanding mobile banking: The unified theory of acceptance and use of technology combined with cultural moderators. *Computers in Human Behavior*, 50(September), 418–430. <https://doi.org/10.1016/j.chb.2015.04.024>
6. Evan, I., Winarno, W. W., & Putro, H. P. (2021). Evaluasi Tingkat Penerimaan E-Money Di Kalangan Mahasiswa Yogyakarta Menggunakan Modifikasi UTAUT2. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, 10(01), 11. <https://doi.org/10.24843/eeb.2021.v10.i01.p02>
7. Fauzi, A., Widodo, T., & Djatmiko, T. (2018). Pengaruh Behavioral Intention Terhadap Use Behavior Pada Penggunaan Aplikasi Transportasi Online (Studi Kasus Pada Pengguna Go-Jek dan Grab di Kalangan Mahasiswa Telkom University). *E-Proceeding of Management*, 5(2), 1790–1795.
8. Filona, & Misdiyono. (2019). Factors Affecting the Adoption of Electronic Money Using Technology Acceptance Model and Theory of Planned Behavior. *Journal of Business Economics*, 24(1), 100–113. <https://doi.org/10.35760/eb.2019.v24i1.1858>
9. Goh, T. T., Suki, N. M., & Fam, K. (2014). Exploring a consumption value model for Islamic mobile banking adoption. *Journal of Islamic Marketing*, 5(3), 344–365.
10. Han, M., Wu, J., Wang, Y., & Hong, M. (2018). A model and empirical study on the user's continuance intention in Online China Brand communities based on customer-perceived benefits. *Journal of Open Innovation: Technology, Market, and Complexity*, 4(4), 1–20. <https://doi.org/10.3390/joitmc4040046>
11. Indah, M., & Agustin, H. (2019). Penerapan Model Utaut (Unified Theory Of Acceptance And Use Of Technology) Untuk Memahami Niat Dan Perilaku Aktual Pengguna Go-Pay Di Kota Padang. *Jurnal Eksplorasi Akuntansi*, 1(4), 1949–1967. <https://doi.org/10.24036/jea.v1i4.188>
12. Indrawati, & Putri, D. A. (2018). Analyzing factors influencing continuance intention of E-payment adoption using modified UTAUT 2 Model: (A case study of Go-Pay from Indonesia). 2018 6th International Conference on Information and Communication Technology, ICoICT 2018, December, 167–173. <https://doi.org/10.1109/ICoICT.2018.8528748>
13. Internetworldstats. (2021). Internet 2021 Usage in Asia. *Internetworldstats.Com*. <https://www.internetworldstats.com/stats3.htm#asia>
14. Ispriandina, A., & Sutisna, M. (2019). Faktor-Faktor Penerimaan Teknologi Yang Memengaruhi Intensi Kontinuitas Penggunaan Mobile Wallet Di Kota Bandung. *Prosiding Industrial Research Workshop and National Seminar*, 10(1), 1046–1055. <https://jurnal.polban.ac.id/ojs-3.1.2/proceeding/article/view/1462>

15. Lidwina, A. (2020). GoPay Jadi Dompot Digital Paling Populer di Indonesia. <https://databoks.katadata.co.id/datapublish/2020/12/28/gopay-jadi-dompot-digital-paling-populer-di-indonesia>
16. Lim, F.-W., Ahmad, F., & Abdul Talib, A. N. (2019). Behavioural Intention towards Using Electronic Wallet : A Conceptual Framework in the Light of the Unified Theory of Acceptance and Use of Technology (UTAUT). *Imperial Journal of Interdisciplinary Research*, 5(1), 79–86.
17. Megadewandanu, S., Suyoto, & Pranowo. (2017). Exploring mobile wallet adoption in Indonesia using UTAUT2: An approach from consumer perspective. *Proceedings - 2016 2nd International Conference on Science and Technology-Computer, ICST 2016, October*, 11–16. <https://doi.org/10.1109/ICSTC.2016.7877340>
18. Phan, T. N., Ho, T. V., & Hoang, P. V. Le. (2020). Factors Affecting the Behavioral Intention and Behavior of Using E-Wallets of Youth in Vietnam. *The Journal of Asian Finance, Economics and Business*, 7(10), 295–302. <https://doi.org/10.13106/jafeb.2020.vol7.n10.295>
19. Piarna, R., Fathurohman, F., & Purnawan, N. N. (2020). Understanding online shopping adoption: The unified theory of acceptance and the use of technology with perceived risk in millennial consumers context. *JEMA: Jurnal Ilmiah Bidang Akuntansi Dan Manajemen*, 17(1), 51. <https://doi.org/10.31106/jema.v17i1.5050>
20. Putri, L. F. S., & Mahendra, I. (2017). Analisa Faktor-Faktor Yang Mempengaruhi Penerimaan Dan Penggunaan Aplikasi Go-Jek Menggunakan Unified Theory of Acceptance and Use of Technology (UTAUT). *Jurnal Pilar Nusa Mandiri*, 13(1), 136–144.
21. Sharma, S. K., & Sharma, M. (2019). Examining the role of trust and quality dimensions in the actual usage of mobile banking services: An empirical investigation. *International Journal of Information Management*, 44(5), 65–75. [10.1016/j.ijinfomgt.2018.09.013](https://doi.org/10.1016/j.ijinfomgt.2018.09.013)
22. Slade, E. L., Dwivedi, Y. K., Piercy, N. C., & Williams, M. D. (2015). Modeling Consumers Adoption Intentions of Remote Mobile Payments in The UK: Extending UTAUT with Innovativeness, Risk and Trust. *Psychology and Marketing*, 32(8), 860–873. <https://doi.org/10.1002/mar.20823/abstract>
23. Solekah, N. A., & Hilmawan, T. W. (2021). Factors that Influence to Intention to Use Electronic Money by UTAUT Model Approach. *Proceedings of the International Conference on Engineering, Technology and Social Science (ICONETOS 2020)*, 529(Iconetos 2020), 713–719. <https://doi.org/10.2991/assehr.k.210421.103>
24. Tee, H. H., & Ong, H. B. (2016). Cashless payment and economic growth. *Financial Innovation*, 2(1). <https://doi.org/10.1186/s40854-016-0023-z>
25. Usman, R. (2017). Karakteristik Uang Elektronik Dalam Sistem Pembayaran. *Yuridika*, 32(1), 134. <https://doi.org/10.20473/ydk.v32i1.4431>
26. Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology. *MIS Quarterly*, 36(1), 157–178. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2002388
27. Widyanto, H. A., Kusumawardani, K. A., & Septyawanda, A. (2020). Encouraging Behavioral Intention To Use Mobile Payment: an Extension of Utaut2. *Jurnal Muara Ilmu Ekonomi Dan Bisnis*, 4(1), 87. <https://doi.org/10.24912/jmieb.v4i1.7584>
28. Yu, L., Cao, X., Liu, Z., Gong, M., & Adee, L. (2018). Understanding mobile payment users' continuance intention: a trust transfer perspective. *Internet Research*, 3.