



The Effect of Perceived Security towards Intention to Use Digital Payment through a Trust

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Abstract. The purpose of this study was to determine the influence of perceived security on trusts and their impact on intention to use digital payments. The study used causal studies to determine intervariable influences. The population used in this study is Micro Small Medium Enterprises (MSMEs) actors in the culinary and fashion fields in the city of Bandung who have not implemented digital payment in carrying out their business activities. The type of data used is primary data collected through instruments in the form of questionnaires, then the data is processed using statistical analysis tools. The results showed that perceived security had a positive and significant effect on trust. Then, trusts have a positive and significant effect on intention to use and trusts can mediate the perceived security influence on intention to use. These results show that the perception of MSMEs who consider digital payment safe to use in making transactions, will increase their trust in digital payment services, which are ultimately going to encourage interest in using digital payments. Therefore, it is important to pay attention to perceived security variables and trusts to be able to influence the intention to use digital payment to MSMEs in the city of Bandung.

Keyword: Digital Payment, Intention to Use, MSMEs, Perceived Security, Trust

1. Introduction

Digital technology is growing so rapidly that it is causing changes in people's mindsets and habits in the world [1]. Developments in financial technology (fintech) encourage the emergence of the cashless society phenomenon which is a condition of society no longer uses cash as a means of payment in making transactions of its economic activities [2]. The government through Bank Indonesia created a national non-cash movement program (GNTT) to support the creation of cashless society ecosystem in the community[3]. The MSMEs sector is one of the concerns of the government to realize a cashless society through efforts to digitize payments [4]. Micro, Small and Medium Enterprises (MSMEs) play a very large role in advancing the Indonesian economy through relatively high labour absorption, contributions to regional incomes and state incomes and their small investment capital needs causing MSMEs to flexibly adjust to answering changing market conditions and making them less vulnerable to various external changes [5]. Over the past three years the number of MSMEs in Indonesia who have implemented digital payments in their business activities is 24.7 million or 38.6% of the total 64 million MSMEs in Indonesia [6]. Based on these data, it is known that there are still many MSMEs in

Indonesia who have not implemented digital payment in carrying out their business activities. The perception of security and trust is the reason many MSMEs have not implemented digital payment [7]. The culinary and fashion sector is a business that is considered more ready to implement a digital payment system in the transaction process [8]. In the city of Bandung, the number of MSMEs continues to grow over the past six years by 3.8% [9] but only 12% of the total 111,627 MSMEs have implemented digital payments. The explanation illustrates that the interest in using digital payment in the MSMEs sector in Bandung can be said to be low.

The promised security and privacy issues that service providers can properly address make consumers consider trust in using electronic transactions [10]. Service providers that ensure user information is securely maintained will develop consumer confidence to use online applications [11]. The perception of consumers that an app gives them security can increase their trust in using the application [12]. [13] and [14] states security as one of the antecedents that positively impact trust. [15] states that perceived security affects trusts with a sense of security in using digital services and protects users from the risk of uncertainty. According to [12], [16], [17], perceived security affects trust. The same result was also stated by [18].

Security becomes an important factor for users of digital payment methods [19]. Digital financial services with inadequate security systems pose a variety of security threats that make consumers feel hesitant in using them, so electronic financial services must have strong security to be able to increase customer trust and foster interest in using them [20]. According to [21] many people are afraid to do the digital transaction because of security issues. Customers may not trust the information system provider and they will refuse to make any transactions via electronic payment unless privacy and security features are involved [22]. Research conducted by [23] and [18] found that safety has an impact on interest in using. This is in line with the research put forward by [24]; [25]; [26]; [27]; [28].

Consumers who have confidence in digital service providers will influence their interest in using the service [29]. Digital trade transactions that are more impersonal and anonymous make consumer trust an important thing that must be built by service providers so that consumers are willing to make transactions in that trading environment [30]. Trust in an application can reduce consumers' desire to enjoy similar services offered by competitors [31]. Consumers will choose to work with those they trust rather than cooperate with unknown parties [32]. [12] states that trusts, influence the intention of use in m-banking. The same finding was found by [33], [13], [34],[35], [36], [37], [38], [39] It also found that trusts influence the intention of use.

Technology can be said to be good and ready when offering a risk-free or secure system [39]. In using digital financial services consumers should be free from the worry that their personal information and financial information may be leaked by third parties, so it is important for service providers to ensure the security of the application for its users. The perception of a sense of security in an application will foster trust in the application and this trust will encourage a person's interest in using the application. This is in line with previous findings that the trust mediates the influence of perceived security on intention to use [31]; [17]; and [12] the same findings were also put forward by [16], [15]; [30]; [32]; [35]. The aims of this study was to determine the influence of perceived security on trusts and their impact on intention to use digital payments. The method used is quantitative with multiple linear regression analysis by conducting causal studies on MSMEs in Bandung. Then conducted a statistical analysis of the hypothesis test t with a significant level (α) of 5% and the analysis of the path.

2. Method

The research method used is a quantitative method with multiple linear regression analysis. The three variables measured are: Perceived Security as a free variable (X) Trust as an Intervening variable (Y) and Intention to Use as a bound variable (Z). The respondent of this research is 60 MSMEs actors in the culinary and fashion fields in the city of Bandung who have not implemented digital payment in their business activities. The data collection technique uses non-probability sampling with 60 respondents which has been mentioned. The data were collected through questionnaires using the

Likert scale. The questionnaire was distributed from September 2 to October 2 2021. Then conducted a statistical analysis of the hypothesis test t with a significance level (α) of 5% and the analysis of the path.

3. Results and Discussion

This research has several hypotheses that will be analyzed:

H1: Perceived security have positive and significant effect on intention to use.

H2: Perceived security have positive and significant effect on trusts.

H3: Trusts have positive and significant effect on intention to use.

H4: Trust mediates perceived security influence on intention to use.

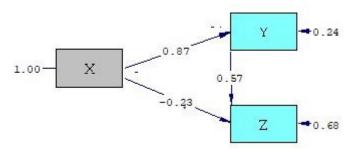


Figure 1. Path Diagram Perceived Security towards Intention to Use Digital Payment through a Trust.

Table 1. Significance Test of influence between Perceived Security towards Intention to Use Digital Payment through a Trust.

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Statistic	Coefficient	t-statistic	t-table	Conclusion
	path			
(α): 0,05	-0,23	-1,05	2,00	H1: Rejected
df = n-k-1 = 60- (3-				There was no positive and
1) = 58				significant influence.
(α): 0,05	0,87	13,72	2,00	H2: Accepted
df = n-k-1 = 60- (3-				There are positive and
1) = 58				significant influences.
$(\alpha): 0.05$	0,57	5,23	2,00	H3: Accepted
df = n-k-1 = 60- (3-				There are positive and
1) = 58				significant influences.
(α): 0,05	0,49	4,88	2,00	H4: Accepted
df = n-k-1 = 60- (3-				Trusts mediates perceived
1) = 58				security influence on
				intention to use

From the table is obtained the result that the path coefficient of the latent perceived security variable is -0.23. Negative path coefficient values indicate no effect of latent perceived security variables on intention to use. The statistical value of the t test for the path coefficient of the perceived security variable is t = -1.05. The table's t value based on the free-degree t distribution table df=n-k=60-2=58 and the significance level α =5% is t_{tabel} =2.00 Since the value $t_{statistic}$ =-1.05< t_{tabel} =2.00, it was concluded that H1 was rejected or there was no statistically significant influence occurring between latent perceived security variables and intention to use variables. The results of this study indicate that the perceived security owned by consumers does not have a direct impact to generate interest in using digital payments.

The path coefficient of the latent perceived security variable is 0.87. The value of the positive path coefficient indicates that the latent perceived security variable has a positive effect on the trust. In other words, the better perceived security of MSMEs actors towards digital payment, the more MSMEs will tend to believe in digital payments. The statistical value of the t test for the path coefficient of the latent perceived security variable is t=13.73. The table's t value based on the free-degree t distribution table df=n-k=60-2=58 and the significance level of α =5% is t_{tabel}=2.00 Because the value t_{statistic}=13.72> t_{tabel}=2.00 it is concluded that H2 is accepted or there is a positive and significant influence that occurs between the latent perceived security variable and the latent trust variable. These findings support the results of previous findings put forward by [12]; [16]; [17]; [18] which states that security has an impact on perceived security affects trusts. The results of this study indicate that a good perceived security of digital payment has an impact on trust in the service so that electronic financial services must have strong security to be able to increase customer trust. This means that if the perceived security is improved, it does have a significant effect on trusts.

The path coefficient of the latent trust variable is 0.57. The value of the positive path coefficient indicates that the latent trust variable has a positive effect on the intention to use. In other words, the better the trust of MSMEs actors towards digital payment, the more MSMEs will tend to be interested in using digital payment. The statistical value of the t test for the path coefficient of the latent perceived security variable is t=5.23. The table's t value based on the free-degree t distribution table df= n-k =60-2=58 and the significance level of α =5% is t_{tabel} =2.00 Because the value $t_{statistic}$ =5.23> t_{tabel} =2.00, it is concluded that H3 is accepted or there is a positive and significant influence that occurs between the latent trusts variable and the latent intention to use variable. These results are in line with previous findings stating that trusts influence the intention of use [33]; [34]; [35]; [36]; [37]; [38]; and [39]. The results of this study show that the better trust consumers have digital payment services, it can lead to the desire to use digital payment services. This means that if the trusts is improved, it does have a significant effect on intention to use.

The coefficient of perceived security mediation path against intention to use through trust is 0.49. A positive path coefficient value indicates there is a trust mediation role. The statistical value of the t test for the trust mediation path coefficient is t=4.88. The table's t value based on the free-degree t distribution table df=n-k=60-2=58 and the significance level of α =5% is t_{tabel} =2.00 Because the value t_{hitung} =4.88> t_{tabel} =2.00, it is concluded that H4 is accepted or trust mediates the influence that occurs between the latent perceived security variable and the latent intention to use variable. The better perceived security of MSMEs to digital payments, the better the trust in service providers and trust will encourage their interest in using the service. These results support the results of previous findings stating that trusts mediate the influence of perceived security on intention to use [31]; [17]; [12]; [16], [15]; [30]; [32]; [35]. The results of this study illustrate that a good consumer perception of the security of digital payment services is able to grow their trust in the service and this trust is able to encourage consumer interest in using digital payment services.

4. Conclusion

Based on statistical analysis that has been tested shows that perceived security has a positive and significant relationship to trust and intention to use mediated by trusts. Then the trust also has a positive and significant effect on intention to use. However, there is no positive and significant relationship between perceived security and intention to use directly. The findings of this study contribute to digital payment service providers to pay attention to perceived security variables and trust in increasing interest in using digital payments among MSMEs owners in Bandung.

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References

- [1] Yucha, N., Setiawan, S., Muttaqiin, N., Ekasari, R., & Mauladi, K. F. (2020). *Digital Payment System Analysis of Buying Decision in Indonesia*. *7*(10), 323–328. https://doi.org/10.13106/jafeb.2020.vol7.n10.323
- [2] Rahadi, R. A., Nainggolan, Y. A., Afgani, K. F., Yusliza, M. Y., Muhammad, Z., Angelina, C., & Farooq, K. (2020). *Conceptual Model for Cashless Society : A Literature Synthesis*. 5(3), 1–7.
- [3] *Lembaran Negara*. No.70, 2018 Perbankan Indonesia. (2018). Uang Elektronik. Pencabutan. (Penjelasan dalam Tambahan Lembaran Negara Republik). https://www.bi.go.id/id/umkm/default.aspxIndonesia,
- [4] https://kemenkopukm.go.id/
- [5] Wijoyo, H., Widiyanti. (2020). Prosiding Sinagara: Inovasi Dalam Mewujudkan Sdg's Pada Era Post Pandemik Digitalisasi Umkm Pasca Pandemi Covid-19 Di Riau. e-ISBN: 978-623-92037-3-3 Hal.12
- [6] https://www.trenasia.com/umkm-masih-takut-digitalisasi-pembayaran
- [7]https://www.timesindonesia.co.id/read/news/372449/indah-kurnia-sukses-dorong-pelaku-umkm-manfaatkan-sistem-pembayaran-qris
- [8] http://diskopumkm.bandung.go.id/
- [10] Yousafzai, S. Y., Pallister, J. G., & Foxall, G. R. (2003). *A proposed model of e-trust for electronic banking*. 23, 847–860. https://doi.org/10.1016/S0166-4972(03)00130-5
- [11] Cheskin Research/Sapient. (1999). eCommerce trust study [Online]. Available: http://www.sapient.com/cheskin/
- [12] Ramos, F. L. (2018). The Effect of Trust in the Intention to Use.
- [13] Dimitriadis, S., & Kyrezis, N. (n.d.). *Linking Trust to Use Intention for Technology-Enabled Bank Channels: The Role.* 27(August 2010), 799–820. https://doi.org/10.1002/mar
- [14] Hanafizadeh, P., Behboudi, M., Abedini, A., Jalilvand, M., & Tabar, S. (2014). Telematics and Informatics Mobile-banking adoption by Iranian bank clients. *Telematics and Informatics*, *31*(1), 62–78. https://doi.org/10.1016/j.tele.2012.11.001
- [15] Roca, J. C., & Jose, J. (2009). The importance of perceived trust, security and privacy in online trading systems. https://doi.org/10.1108/09685220910963983
- [16] Alharbi, N., Papadaki, M., & Dowland, P. (2016). *The impact of security and its antecedents in behaviour intention of using e-government services.* 3001(December). https://doi.org/10.1080/0144929X.2016.1269198
- [17] Al-sharafi, M. A. (n.d.). The Effect of Perceived Ease of Use and Usefulness on Customers Intention to Use Online Banking Services: The Mediating Role of Perceived Trust. 7(1), 9–14.
- [18] Kumar, A., Mukherjee, AA, K. (2018) "*The effect of perceived security and grievance redressal on continuance intention to use M-wallets in a developing country*", International, Journal of Bank Marketing, https://doi.org/10.1108/IJBM-04-2017-0077
- [19] Taufan, A., & Yuwono, R. T. (2019). *Analysis of Factors That Affect Intention to Use e-Wallet through the Technology Acceptance Model Approach (Case Study: GO-PAY).* (August). https://doi.org/10.21275/ART2020219
- [20] Srivastava, S. S. R. K. (2020). Understanding the intention to use mobile banking by existing online banking customers: an empirical study. *Journal of Financial Services Marketing*, (0123456789). https://doi.org/10.1057/s41264-020-00074-w
- [21] Marimuthu , M., & Roseline , A. (2020). A Study On Consumer Perception Towards E-Wallet. Our Heritage, 68(17), 283-288
- [22] Gitau, L., & Nzuki, D. (2014). Analysis of Determinants of M-Commerce Adoption by Online Consumers. 4(3), 88–94.

- [23] Amoroso, D. L., & Magnier-watanabe, R. (2012). *Building a Research Model for Mobile Wallet Consumer Adoption: The Case of Mobile Suica in Japan*. *7*(1), 94–110. https://doi.org/10.4067/S0718-18762012000100008
- [24] Wang, Y. S., Wang, Y. M., Lin, H. H., Tang, T. I., Wang, Y., Wang, Y., & Lin, H. (2006). *Determinants of user acceptance of Internet banking: an empirical study*. https://doi.org/10.1108/09564230310500192
- [25] Shin, D. (2009). Computers in Human Behavior Towards an understanding of the consumer acceptance of mobile wallet. *Computers in Human Behavior*, 25(6), 1343–1354. https://doi.org/10.1016/j.chb.2009.06.001
- [26] Gao, F., Rau, P. P., & Zhang, Y. (2017). Perceived Mobile Information Security and Adoption of Mobile Payment Services in China. 9(1), 45–62. https://doi.org/10.4018/IJMHCI.2017010104
- [27] Gao, F., Rau, P. P., & Zhang, Y. (2017). Perceived Mobile Information Security and Adoption of Mobile Payment Services in China. 9(1), 45–62. https://doi.org/10.4018/IJMHCI.2017010104
- [28] Patel, K,J., Patel, H,J. (2017). "Adoption of internet banking services in Gujarat: an extension of TAM with perceived security and social influence", International Journal of Bank Marketing, https://doi.org/10.1108/IJBM-08-2016-0104 Permanent link to this document: https://doi.org/10.1108/IJBM-08-2016-0104
- [29] Marett, K., Pearson, A. W., Pearson, R. A., & Bergiel, E. (2014). Technology in Society Using mobile devices in a high risk context: The role of risk and trust in an exploratory study in Afghanistan. *Technology in Society*. https://doi.org/10.1016/j.techsoc.2014.11.002
- [30] Chen, Y., & Barnes, S. (2007). *Initial trust and online buyer behaviour*. *107*(1), 21–36. https://doi.org/10.1108/02635570710719034
- [31] Salo, J. and Karjaluoto, H. 2007. Mobile Games as an Advertising Medium: Toward a New Research Agenda. The International Research Journal Innovative Marketing. 3 (1) 72-83
- [32] Fradiani, R., & Yudiarti, E. (2018). THE EFFECT OF PERCEIVED USEFULNESS AND PERCEIVED EASE OF USE TO INTEREST TO BUY E-BOOK. 16(3).
- [33] Mcknight, D. H., & Chervany, N. L. (2014). *International Journal of What Trust Means in E-Commerce Customer Relationships: An Interdisciplinary Conceptual Typology*. (February 2015), 37–41. https://doi.org/10.1080/10864415.2001.11044235
- [34] Kim, G., Shin, B., & Lee, H. G. (2009). *Understanding dynamics between initial trust and usage intentions of mobile banking*. 283–311. https://doi.org/10.1111/j.1365-2575.2007.00269.x
- [35] Shaw, N. (2014). Journal of Retailing and Consumer Services The mediating in fl uence of trust in the adoption of the mobile wallet. *Journal of Retailing and Consumer Services*, *21*(4), 449–459. https://doi.org/10.1016/j.jretconser.2014.03.008
- [36] Denaputri, A., Usman O., (2019). *Effect of perceived trust, perceived security, perceived usefulness dan perceived ease of use on customer Intention to Use. Mobile payment.* (n.d.).
- [37] Halim, E., & Karsen, M. (2020). The Impact of Trust to Online Purchase Intention of Business Investors. (August), 709–714.
- [38] Gunawan, C., & Septianie, I. (2021). *The Effect of Trust and Risk Perceptions Using E-Commerce on Consumer Purchase Intentions (Study on Lazada Consumers in Sukabumi City)*. 1(2), 239–247.
- [39] Tahar, A., Riyadh, H. A., Sofyani, H., & Purnomo, W. E. (2020). *Perceived Ease of Use*, *Perceived Usefulness*, *Perceived Security and Intention to Use E-Filing*: *The Role of Technology Readiness* *. 7(9), 537–547. https://doi.org/10.13106/jafeb.2020.vol7.no9.537 ces in the current document.