

# Jurnal Manajemen (Edisi Elektronik)

Sekolah Pascasarjana Universitas Ibn Khaldun Bogor

<http://dx.doi.org/10.32832/jm-uika.v15i1.14771>

## The Effect of Customer Satisfaction, E-Word of Mouth, and Initial Trust on Livin's Mobile Banking Adoption Interest

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### ARTICLE INFO

DOI: 10.32832/jm-uika.v15i1.14771

Article history:

Received:

6 Februari 2024

Accepted:

6 Februari 2024

Available online:

7 Februari 2024

Keywords:

Argument Quality, Valence, Consistency, Customer Satisfaction, Mobile Banking Adoption Intention

### ABSTRACT

Mobile Banking is a banking service that customers can access via cellphone or smartphone. This research aims to investigate the impact of positive Electronic Word of Mouth (eWOM) on the adoption of Mobile Banking. In this study, it was found that Argument Quality, Valence, and Customer Satisfaction have a positive influence on Initial Trust, which in turn affects the intention to adopt Mobile Banking. This study uses a descriptive research design approach with empirical data collected through an online survey of PT Bank X's customer respondents in East Jakarta. The collected data was subsequently analyzed using the Partial Least Square (PLS) analysis method with the aid of smartPLS 4.0 software. The results of this study, there is no positive impact from Consistency and Volume Review on Initial Trust. The findings of this study provide recommendations to banks to leverage positive eWOM to encourage customers to adopt Mobile Banking. These findings emphasize the importance of Customer Satisfaction in enhancing Initial Trust, which contributes to the usage of Mobile Banking applications and Customer Satisfaction.

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## 1. INTRODUCTION

Banks face competition in Industry 4.0 which encourages them to improve digital services. Banking offers several alternative channels such as ATMs, online banking and Mobile Banking to provide banking services (Shankar et al., 2020). Customers currently use online banking as a medium for transactions, information and transfer reports for banking services (Shankar & Jebarajakirthy, 2019). Previous research discussing eWOM focuses on the impact of customers' Initial Trust on Mobile Banking Adoption decisions (Shankar et al., 2020). In this context, introducing Mobile Banking to customers is very important so that they feel that banking services can be accessed through their physical bank and in their hands. The media used to share information is social media. The relationship between intuition and intention is one of the roles of sharing positive reviews about products and services through eWOM (Quelyu & Santoso, 2021)

Previous research shows that factors such as eWOM, initial trust, and consumer engagement have a significant influence on Mobile Banking adoption. This research provides several bank recommendations on how to use positive eWOM to motivate consumers to adopt Mobile Banking (Shankar et al., 2020). Future research is expected to explore the positive impact of eWOM on banking adoption. In the future, the impact of eWOM on other customer behavioral outcomes, including consumer satisfaction can be analyzed (Shankar et al., 2020).

Mobile banking is a growing service delivery platform in the financial services industry, and positive eWOM triggers can play an important role in increasing the intention to adopt Mobile Banking (Shankar et al., 2020). Referring to Bank Indonesia data, the value of digital banking transactions increased 31.40 percent on an annual basis (year-on-year/yoy) to IDR 4,557.5 trillion in August 2022. The growth in digital banking transactions was felt by several banking industry players, one of which is PT Bank Mandiri (Persero) Tbk. This state-owned bank codenamed BMRI recorded transactions via the super app Livin' by Mandiri reaching 1 billion or up 62 percent yoy until August 2022. On average, the company executes up to 50,000 transactions per second (Khadafi, 2022).

**Tabel 1.1.** Bank in Indonesia with the Largest Number of Customers

No	Bank	Number of Customers
1	BCA	20.8 Million Customers as of August 2022
2	BRI	18.7 Million Customers as of June 2022
3	BANK MANDIRI	13 Million Customers as of June 2022
4	BNI	12.4 Million Customers as of September 2022
5	CIMB NIAGA	3 Million Users as of June 2022

Source: [idxchannel.com](http://idxchannel.com), [www.bni.co.id](http://www.bni.co.id), [databoks.katadata.co.id](http://databoks.katadata.co.id), [keuangan.kontan.co.id](http://keuangan.kontan.co.id), <https://finansial.bisnis.com>, 2022

Based on Table 1.1, Bank Mandiri is in third position with a bank that has 13 million customers as of June 2022. Gross transaction value reached IDR 508 trillion, an increase of 49% Yoy, with total downloads of 12 million and active users of 11 million at the end. March 2022. Bank Mandiri through the Livin' by Mandiri mobile application recorded a transaction value of IDR 1,716 trillion during the current year. Meanwhile, Livin' transaction volume reached 1.38 billion. When compared with the value of BCA m-banking transactions, it grew 39.1 percent compared to the end of September 2021 which reached IDR 2,850 trillion. Meanwhile transaction volume grew 49 percent year-on-year (yoy) to 3.93 billion transactions (<https://finansial.bisnis.com/>, 2022). Bank Mandiri still has quite a big difference compared to Bank BCA.

This research is expected to provide an overview of current conditions. Researchers studied this phenomenon at PT Bank Mandiri KCP Jakarta Hutama Karya with a total of 412 customer accounts, then of that number there were 227 Livin' by Mandiri Mobile Banking users at that branch. This means that there are 185 Bank Mandiri Jakarta Hutama Karya Branch customers who have not accessed the Livin' by Mandiri application.

Currently the Mobile Banking application is undergoing updates to meet consumer needs. There is a change in the size of the application, the addition of an E-Wallet, the initial display of the login page and a menu display where there are Transfer, Payment, Top-ip, e-money, Cardless Withdrawal, QR payments, investment, Sukha, Branch Service features.

EWOM is informal communication carried out by users of goods or services which can be expressed through mass media. The media used to share information is social media. The relationship between intuition and intention is one of the roles of sharing positive reviews about products and services through eWOM (Quelyu & Santoso, 2021).

Several previous studies have been conducted to test eWOM on Mobile Banking adoption, the research results prove that triggers, Argument Quality, Valence, and Consistency as well as Review Volume increase the intention to adopt Mobile Banking. This effect is mediated by Initial Trust in Mobile Banking. The mediating effect of Initial Trust between valence and intention varies across consumer engagements. These findings provide several contributions to the marketing communications literature, particularly eWOM research and ELM theory. Practically, this research provides several bank recommendations on how to use positive eWOM to motivate consumers to adopt Mobile Banking (Shankar et al., 2020)

Researchers are interested in conducting research again by expanding or modifying and fulfilling the aspects suggested in previous research, by adding the Customer Satisfaction variable as an intervening variable.

## **2. RESEARCH METHODS**

Hypotheses proposed in previous research and extensions offered, this research seeks to answer the following research questions:

1. Does Argument Quality eWOM have a positive effect on Intial Trust?
2. Does eWOM Valence have a positive effect on Intial Trust?
3. Does eWOM Consistency have a positive effect on Intial Trust?
4. Does eWOM Review Volume have a positive effect on Initial Trust?
5. Does Customer Satisfaction influence Initial Trust?
6. Does Initial Trust influence the intention to adopt Mobile Banking Livin' By Mandiri?

This research uses a survey method by distributing questionnaires. The questionnaire contains information on respondents who use the Livin Mobile Banking Application 2.1.1 such as name, age, gender, employment status, and number of uses of the Livin Mobile Banking Application in one month. The object studied is the Livin Mobile Banking Application. This research uses the Structural Equation Model (SEM) method with a target total research sample of at least 100 respondents in the age range of 17 to 41 years (Quelyu & Santoso, 2021)

This research focuses on factors that influence the intention to use Livin' by Mandiri Mobile Banking, namely Argument Quality, Valence, Consistency, Review Volume, Initial Trust, and Customer Satisfaction. The convergent validity of the measurement model with the reflective indicator model is evaluated based on the correlation between the product score/component score and the score.

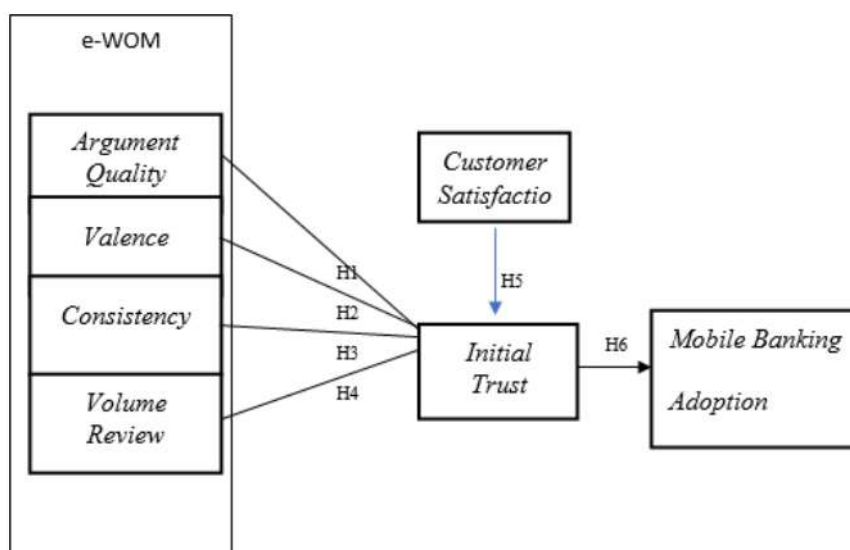
construction is calculated with PLS. (Anuraga et al., 2017). A questionnaire can be said to be reliable or trustworthy if the respondent's answers to statements are consistent or stable over time (Ghozali & Latan, 2014). The basis for making discriminant validity decisions is that the cross-loading value of each indicator on a construct must be greater than the cross-loading value of indicators on other constructs (Hair et al., 2017). The survey data was then analyzed using the Partial Least Square method using smartPLS software

4.0. The Structural Equation Model (SEM) method targets a total research sample of at least 100 respondents in the age range of 17 to 41 years (Quelyu & Santoso, 2021). PLS-SEM prioritizes indicators according to their reliability during model estimation (Hair et al., 2017)

### **3. RESULTS & DISCUSSION**

The results of the analysis can be seen in the structural model to test the suitability of the model to the data. After knowing the results of the data analysis, it will then be interpreted and conclusions drawn from the interpretation.





**Figure 1.** Research Model

Sources: Researcher, 2023

The application used by researchers is smartPLS 4.0 software as a supporting application for Structural Equation Model (SEM) analysis. SmartPLS 4.0 software will help researchers process data so that it becomes easier. The results of the analysis in this research are that all constructs or measuring instruments for each variable are valid. Then the Consistency variable is 0.473 below the Cronbach's Salpha criteria, this is understandable because there are variations in responses or differences in perception between respondents.

The overall model structure shows that of the 6 hypotheses, 4 hypotheses have a positive influence and 2 hypotheses have a negative influence. The following is a discussion of each research hypothesis test.

**The influence of Argument Quality eWOM is positive on Intial Trust.** The results of this research show that there is a positive and significant influence between Argument Quality and Intial Trust. This finding is in accordance with research results (Shankar et al., 2020) which stated that if consumers find specific and complete reviews, they will feel more motivated to adopt Mobile Banking. This proves that Argument Quality plays an important role in increasing Initial Trust in the Adoption of Livin' by Mandiri Mobile Banking.

Argument Quality has a big influence on customer Initial Trust because it has an average indicator value that is higher than the variable average value of 6.50. The indicator with the lowest value is QA2 "Is the information about Livin Mobile Banking on Instagram persuasive?" with an average value of 6.45, this means that in providing information about Livin Mobile Banking, apart from being accurate and complete, it is best to use persuasive language so that customers can trust the information.

**The influence of positive eWOM Valence on Intial Trust.** The hypothesis in this research shows that there is a positive and significant influence between positive eWOM Valence and Intial Trust. This proves that positive eWOM Valence towards Intial Trust plays an important

role in increasing Livin' by Mandiri Mobile Banking Adoption. The findings are in line with research results (Shankar et al., 2020) namely that when customers see positive eWOM reviews with some counter-arguments (negative content) rather than just positive reviews, they tend to believe that the previous review is more credible. Positive eWOM valence also influences the intention to adopt banking. Consumers' perceived risk plays an important role in financial services adoption behavior. From the explanation above, it can be concluded that Valence eWOM can increase Intial Trust and play an important role in increasing Livin' by Mandiri Mobile Banking Adoption.

Variable Valence has a big influence on customer Initial Trust because it has a higher average indicator value than the variable average value of 6.59. The indicator with the lowest value is V2 "Do Livin Mobile Banking reviews on Instagram only include positive comments?" with an average value of 6.49. Second with the lowest score is V4 "Do the positive reviews about Mobile Banking Livin on Instagram also highlight some of the weaknesses of Mobile Banking Livin?" This needs to be paid attention to in the Livin application features in order to improve the consumer experience better. There is an important suggestion for service providers to pay attention to positive reviews which also highlight weaknesses, and use this feedback to carry out necessary evaluations and improvements.

**The positive influence of eWOM Consistency on Intial Trust.** Based on hypothesis testing, it shows that the t test statistical value is 0.796, which is smaller than 1.96, which means that the relationship between positive eWOM Consistency is not significant on Intial Trust. This research shows that there is a negative and insignificant influence between eWOM Consistency and Intial Trust. This proves that the relationship between customer reviewers on Bank Mandiri's Instagram account plays an important role in increasing the initial trust received by other customers. This finding is not in accordance with the results of research (Shankar et al., 2020) but is in line with research (Luo et al., 2014) and (Chakraborty & Bhat, 2018), which states that the consistency variable is not given much attention if there are other variables. which is more influential. Respondents do not really care about the consistency factor to evaluate the credibility of the online reviews they have read. If consumers provide inconsistent comments, they should try to find out the problem and resolve it immediately, this will increase the consistency of the reviews. Thus, it can be concluded that Consistency can reduce the initial level of customer trust in adopting Mobile Banking Livin' by Mandiri.

**The influence of eWOM Review Volume is positive on Intial Trust.** Review volume has a lower average indicator value compared to the average value of the Valence variable, which is 6.67. The indicator with the lowest value is VR3 "Is the number of Livin Mobile Banking reviews on Instagram sufficient?" with an average value of 6.61, this means that there are incomplete reviews so that customers do not feel satisfied with the reviews circulating on online platforms.

Proving the hypothesis in this study shows that the t test statistical value of 1.036 is smaller than 1.96, which means that the relationship between positive eWOM Review Volume is not significant on Intial Trust. This finding is in accordance with research results (Shankar et al.,

2020) that there is a negative and insignificant influence between Volume Review on initial trust. In line with research (Shankar et al., 2020). When consumers encounter many online reviews relating to any product or service, they tend to develop initial trust in that product or service. This proves that the large number of Volume Reviews on initial trusts does not play an important role in increasing the Adoption of Mobile Banking Livin' by Mandiri.

**Customer Satisfaction on Intial Trust.** The hypothesis in this research shows that the t test statistical value of 2,845 is greater than 1.96, which means that the relationship between Customer Satisfaction is significant and Intial Trust. These findings indicate that there is a positive and significant influence between Customer Satisfaction and Intial Trust. This finding is in accordance with research results that show a positive relationship between customer satisfaction and trust in the organization (Shankar et al., 2020) and (Van de Scheur, 2017). Consumer evaluations of purchased products can influence their product satisfaction, formed based on consumers' perceived performance of the purchased product (post-purchase experience) compared to their expectations of the product (pre-purchase attitude). In general, consumers are satisfied with a purchased product when they perceive the product's performance to meet or exceed their expectations. Consumer expectations can come from other consumer feedback such as eWOM. This proves that Customer Satisfaction plays an important role in increasing Initial Trust in the Adoption of Mobile Banking Livin' by Mandiri

**Initial Trust in Mobile Banking Adoption Intention.** The results of hypothesis testing show that the t test statistical value is 13,646, which is greater than 1.96, which means that the results of the analysis show that there is a positive and significant influence between Initial Trust and Mobile Banking Adoption Intention. This finding is in accordance with research results (Shankar et al., 2020). The role of Initial Trust is also important in the context of mobile commerce due to customer concerns regarding the smaller screen size of mobile devices and network instability that can affect the functionality of mobile banking applications. This proves that Trust plays an important role in increasing Initial Trust in the Adoption of Livin' by Mandiri Mobile Banking.

Based on the results of the validity test and reliability test analysis, the test results show that the values of all the variables tested have passed the required values where in the validity test all indicators show a standardized loading factor (SLF)  $\geq 0.5$  and it can be concluded that the variables studied are valid respectively. -each variable. In the reliability test, it can be seen that all indicators have an Average Variance Extended (AVE) value  $\geq 0.5$ , while in Construct Reliability (CR) the ideal indicator value is  $\geq 0.7$ . The variables Argument Quality, Valence, Review Volume, Customer Satisfaction, Initial Trust and Mobile Banking Adoption Intention have Cronbach's Salpha and Composite Reliability results that meet the criteria where the Cronbach'S Salpha and Composite Reliability results each have values above 0.7. Then the Consistency variable is 0.473 below the Cronbach's Salpha criteria, this is understandable because there are variations in responses or differences in perceptions between respondents. This shows that almost all of the variables studied are reliable.

**Table 1.** Validity and Reliability Test

Variabel	Indikator	Uji Validitas			Uji Reliabilitas	
		Loading Factor	Kesimpulan	AVE	CS	Kesimpulan
<i>Argument Quality</i>	AQ3	0,804	Valid	<b>0,718</b>	<b>0,836</b>	Realible
	AQ4	0,888	Valid			
<i>Consistency</i>	C1	0,748	Valid	<b>0,652</b>	<b>0,789</b>	Tidak Reliable
	C3	0,763	Valid			
<i>Valence</i>	V1	0,742	Valid	<b>0,701</b>	<b>0,7875</b>	Reliable
	V3	0,881	Valid			
<i>Volume Review</i>	V4	0,881	Valid	<b>0,719</b>	<b>0,885</b>	Reliable
	VR1	0,825	Valid			
	VR2	0,879	Valid			
<i>Customer Satisfscion</i>	VR3	0,939	Valid	<b>0,815</b>	<b>0,898</b>	Reliable
	CS3	0,909	Valid			
<i>Initial Trust</i>	CS4	0,897	Valid	<b>0,729</b>	<b>0,889</b>	Reliable
	IT1	0,886	Valid			
	IT2	0,835	Valid			
<i>Mobile Banking Adoption Intention</i>	IT4	0,838	Valid	<b>0,67</b>	<b>858</b>	Reliable
	MBAI1	0,864	Valid			
	MBAI2	0,857	Valid			
	MBAI3	0,726	Valid			

Source : Data Primer yang diolah peneliti (2023)

Valence's managerial implications have a big influence on Initial Trust. This needs to be paid attention to the features of the Livin application so that it can improve the consumer experience better. There is an important suggestion for service providers to pay attention to positive reviews that also highlight weaknesses, and use this feedback to make necessary evaluations and improvements.

The managerial implication of Customer Satisfaction is an effort to maintain Customer Satisfaction, so that Bank Mandiri can provide personnel training, so that employees can improve their knowledge, abilities and attitudes in handling every customer complaint. Bank Mandiri can also add a Customer Satisfaction survey to the Livin' by Mandiri Mobile Banking application in the form of a star which describes the level of customer satisfaction with the Livin' by Mandiri Mobile Banking application before the customer exits the application after completing the transaction. . Apart from adding a Customer Satisfaction survey, Bank Mandiri can also create an application rating assessment program to provide suggestions and constructive criticism on Bank Mandiri's official social media accounts as well as paying attention to input and input on official social media accounts to continue to update the latest developments and improvements.

In Review Volume there are suggestions to increase the number of reviews that provide a clear picture of the overall user experience, namely by holding a loyalty program where users can collect additional points or prizes by providing quality reviews.



Suggestions regarding Consistency where the manager can ensure that the reviews spread on the Bank Mandiri Instagram account show good quality. This is due to the trend of customers sharing their experiences through various online platforms and evaluating reviews received from various sources.

Initial Trust can be used as a challenge to managers so that Livin Mobile Banking always follows technological developments. Managers must invest in updating Mobile Banking Applications by following industry trends, such as artificial intelligence, biometric security. In this way, managers can ensure that the Livin Mobile Banking provider remains relevant and at the forefront of meeting customer needs in the future.

#### **4. CONCLUSION & SUGGESTION**

This research aims to analyze and determine the extent to which Initial Trust and Mobile Banking Adoption Intention are influenced by Argument Quality, Consistency, Valence, and Review Volume. The results of the analysis using the SEM method show that Argument Quality, Valence and Customer Satisfaction are proven to have a positive influence on Initial Trust which ultimately influences the intention to adopt Mobile Banking. However, there is no positive influence from Consistency and Volume Review on Initial Trust.

Research to test the hypothesis proposed at Bank Mandiri, Hutama Karya Branch, East Jakarta, can be concluded: Based on the results of the analysis and conclusions in this research, suggestions can be made to improve the quality of service in involving customers as one of the recommendations in terms of marketing via eWOM on Instagram social media. The analysis in this research is supported by data obtained by respondents from banks in East Jakarta.

Suggestions for future researchers. For banking, the variables that have a significant influence as drivers in increasing initial trust in mobile banking adoption intentions, and perceptions in mobile banking adoption intentions are Valence and Customer Satisfaction. Banks must focus more on the two variables above because they are the driving force for all variables, especially increasing respondents' assessment of customers' positive opinions regarding mobile banking and their opinions influencing prospective customers and customer satisfaction. Always involve customers in every decision making on bank services, both operational services and online services. Increasing customer enthusiasm to increase customer participation for future service improvements. Pay attention to positive reviews that also highlight weaknesses, and use the feedback to make necessary evaluations and improvements.

Banks can provide personnel training so that employees can improve their knowledge, abilities and attitudes in handling every customer complaint. Banks can also add a Customer Satisfaction survey to the Mobile Banking application in the form of a star which describes the level of customer satisfaction with the Mobile Banking application before the customer exits the application after completing the transaction. In addition to adding a Customer Satisfaction survey, the Bank can also create an application rating program to provide suggestions and constructive criticism on the Bank's official social media accounts and pay

attention to input and input on official social media accounts to continue to update the latest developments and improvements.

## REFERENCES

- [1] Abror, A., Patrisia, D., Engriani, Y., Evanita, S., Yasri, Y., & Dastgir, S. (2020). Servicequality, religiosity, Customer Satisfaction, customer engagement and Islamic bank's customer loyalty. *Journal of Islamic Marketing*, 11(6), 1691–1705. <https://doi.org/10.1108/JIMA-03-2019-0044>
- [2] Anuraga, G., Sulistiyawan, E., & Munadhiroh, S. (2017). Structural Equation Modeling–Partial Least Square Untuk Pemodelan Indeks Pembangunan Kesehatan Masyarakat (IpkM) Di Jawa Timur. *Seminar Nasional Matematika Dan Aplikasinya*, 257.
- [3] Chakraborty, U., & Bhat, S. (2018). Credibility of online reviews and its impact on brandimage. *Management Research Review*, 41(1), 148–164. <https://doi.org/10.1108/MRR-06-2017-0173>
- [4] Farzin, M., Sadeghi, M., Yahyayi Kharkeshi, F., Ruholahpur, H., & Fattahi, M. (2021). Extending UTAUT2 in M-banking adoption and actual use behavior: Does WOM communication matter? *Asian Journal of Economics and Banking*, 5(2), 136–157. <https://doi.org/10.1108/ajeb-10-2020-0085>
- [5] Ghozali, I., & Latan, H. (2014). Partial Least Squares Konsep, Teknik dan Aplikasi Menggunakan Program SmartPLS 3.0. Universitas Diponegoro.
- [6] Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A primer on partial leastsquares structural equation modeling (PLS-SEM). In *Library of Congress Cataloging-in- Publication Data (Second Edi, Vol. 38, Issue 2)*. <https://doi.org/10.1080/1743727x.2015.1005806>
- [7] Luo, C., Wentian, L., Fu, X., Zeng, T., & Lan, Y. (2014). Association for Information Systems AIS Electronic Library (AISeL) Managing Uncertainty on Ewom: A Comparision Studsy between Commercial and Third Party Websites Recommended Citation. 279. <http://aisel.aisnet.org/pacis2014http://aisel.aisnet.org/pacis2014/279>
- [8] Mehrad, D., & Mohammadi, S. (2017). Word of Mouth impact on the adoption of Mobile Banking in Iran. *Telematics and Informatics*, 34(7), 1351–1363. <https://doi.org/10.1016/j.tele.2016.08.009>
- [9] Quelyu, V. C. De, & Santoso, S. (2021). Peranan Customer Satisfaction dan Customer Commitment terhadap e-WOM dalam Pengguna Aplikasi Gopay di Yogyakarta. *Jurnal Nusantara Aplikasi Manajemen Bisnis*, 6(1), 1–14. <https://doi.org/10.29407/nusamba.v6i1.14533>
- [10] Shankar, A., & Jebarajakirthy, C. (2019). The influence of e-banking service quality on customer loyalty: A moderated mediation approach. *International Journal of Bank Marketing*, 37(5), 1119–1142. <https://doi.org/10.1108/IJBM-03-2018-0063>
- [11] Shankar, A., Jebarajakirthy, C., & Ashaduzzaman, M. (2020). How do electronic word ofmouth practices contribute to Mobile Banking adoption? *Journal of Retailing and Consumer Services*, 52 (August 2018), 101920. <https://doi.org/10.1016/j.jretconser.2019.101920>
- [12] Shankar, A., & Rishi, B. (2020). Convenience matter in Mobile Banking adoption intention? *Australasian Marketing Journal*, 28(4), 273–285. <https://doi.org/10.1016/j.ausmj.2020.06.008>
- [13] Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- [14] Van de Scheur, L. (2017). Customer Satisfaction, trust and its influence on co-productionand

customer loyalty.

- [15] Zhou, T. (2011). An empirical examination of initial trust in Mobile Banking. *Internet Research*, 21(5), 527–540. <https://doi.org/10.1108/10662241111176353>.
- [16] Bankmandiri.co.id. (2023). Edukasi Cara Penggunaan Livin' by Mandiri. <https://bankmandiri.co.id/livin/edukasi>
- [17] www.cnbcindonesia.com. (2022). No Title. <https://www.cnbcindonesia.com/market/20220427163203-17-335425/pengguna-livin-by-mandiri-tembus-11-juta-transaksi-rp-508-t>
- [18] <https://finansial.bisnis.com/>. (2022). Membanding Nilai Transaksi m-Banking BCA(BBCA), BNI (BBNI), dan Mandiri (BMRI), Siapa Juara? <https://finansial.bisnis.com/read/20221106/90/1595324/membanding-nilai-transaksi-m-banking-bca-bbca-bni-bbni-dan-mandiri-bmri-siapa-juara>
- [19] <https://money.kompas.com>. (2022). Bank Mandiri Dorong Nasabah Beralih ke Super AppLivin' by Mandiri, Apa Saja Fiturnya? Kompas.Com. <https://money.kompas.com/read/2022/01/25/130000126/bank-mandiri-dorong-nasabah-beralih-ke-super-app-livin-by-mandiri-apa-saja?page=all>