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# Digital Banking Adoption in Indonesia: The Role of Perceived Usefulness and Ease of Use

**Andhi Febisatria*, Zulfahmi, Eureka Try Zarazwanty R. Laega, Leonardo Davidsi Sipayung, Aryan Agus Pratama**
Universitas Negeri Makassar, Makassar, Indonesia

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Abstract

The advancement of digital technology has revolutionized the banking industry, enabling greater convenience, speed, and efficiency in financial transactions. This study aims to analyze the influence of perceived usefulness and perceived ease of use on behavioral intention to use the Livin' by Mandiri application, employing the Technology Acceptance Model (TAM) as the theoretical framework. A quantitative research approach was used through a survey of 100 active Bank Mandiri customers who have used the Livin' by Mandiri application for at least 1 year. Purposive sampling was used to select respondents, and data were analyzed using multiple linear regression in IBM SPSS Statistics 22. The findings indicate that perceived usefulness and perceived ease of use both have a positive and significant impact on behavioral intention to use. These results confirm that user perceptions of benefits and ease of use are key drivers of digital banking adoption. Accordingly, this study reinforces the relevance of the TAM model in explaining the adoption behavior of digital banking technologies among urban communities in Indonesia, which are increasingly adaptive to digital transformation in the financial sector.

Keywords: Digital banking; Perceived Ease of Use; Perceived Usefulness; Technology Acceptance Model (TAM).



*Corresponding author. Tel: +62-895-6400-51003, E-mail: andhi.febisatria@unm.ac.id
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## I. Introduction

The advancement of digital technology has revolutionized the structure and mechanisms of service delivery in the financial sector, particularly in the banking industry. This transformation has driven financial institutions to innovate through technology-based services to remain competitive amid changing consumer behaviors. One of the most significant innovations is mobile banking (M-banking), which enables customers to conduct various financial transactions via smart devices such as smartphones (Baetens, 2015). This service provides an integrated application-based financial transaction platform and plays a strategic role in expanding service reach and enhancing customer loyalty toward banks (Febisatria & Liliyan, 2024; Ho et al., 2025; Saputra & Rekarti, 2021).

As one of the largest financial institutions in Indonesia, Bank Mandiri has responded to this development by launching the Livin' by Mandiri application as part of its digital transformation initiative. The application offers a range of features, including fund transfers, bill payments, digital product purchases, and investment management, all within a unified system. The success of digital banking applications like Livin' by Mandiri is determined not only by the number of users but also by the extent to which the public positively accepts and perceives the technology (Sawa et al., 2024). According to Bank Mandiri (2024), of the total 41.8 million customers, approximately 27.6 million (67%) actively use Livin' by Mandiri. However, a portion of users still do not fully utilize all available features, indicating a technology acceptance gap.

The Technology Acceptance Model (TAM) (Davis, 1989), the successful adoption of technology is influenced by two main constructs: perceived usefulness and perceived ease of use. These two factors directly shape behavioral intention to use, which refers to an individual's behavioral intention to adopt a technological system. Previous studies, such as those conducted by Abdennebi (2023); Alalwan et al. (2017); Malaquias and Silva (2020) have confirmed that perceived usefulness and ease of use are primary determinants of mobile banking adoption across various developing countries. Nevertheless, research within the Indonesian context, particularly at the city level, remains limited and is descriptive mainly or qualitative in nature (Febisatria & Adwishanty, 2025). Meanwhile, urban users possess distinct characteristics, including high digital literacy and frequent exposure to technology, yet still exhibit variation in preferences and trust toward digital banking services (Hanafizadeh et al., 2014). This condition indicates that empirical validation of the relationships between perceived usefulness, perceived ease of use, and behavioral intention to use within the context of Livin' by Mandiri users remains scarce.

Based on the aforementioned background and research gaps, this study aims to analyze the influence of perceived usefulness and perceived ease of use on the behavioral intention to use the Livin' by Mandiri application, both partially and simultaneously, among users in Makassar City. Using a quantitative approach, this study aims to clarify the extent to which these two independent variables contribute to the intention to adopt digital banking technology. The study also holds urgency in empirically re-examining the TAM within urban communities in Eastern Indonesia, specifically in Makassar City, to strengthen the understanding of the factors influencing the acceptance of digital banking services in a local context.

## II. Method

This study employs a quantitative, survey-based approach to test relationships among variables derived from the TAM. Cross-sectional data were collected in Makassar City by distributing closed questionnaires to 100 active Bank Mandiri customers who have used the Livin' by Mandiri application for at least 1 year. The sample was determined using purposive sampling, where respondents were selected based on specific characteristics relevant to the research objectives (Hair et al., 2019). The sample size was calculated using Lemeshow's formula with a 95% confidence level and a 10% margin of error (Lemeshow, 1979).

The research instrument was adapted from prior validated scales (Gardner & Amoroso, 2004) and consisted of three main variables: perceived usefulness (4 items), perceived ease of use (3 items), and usage intention (4 items), measured using a five-point Likert scale. To ensure instrument quality, validity, and reliability, tests were conducted. The validity of each indicator was tested using factor loadings and the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy, with loadings greater than 0.50 indicating construct validity. Reliability was assessed using Cronbach's Alpha coefficients, with values above 0.70 indicating acceptable internal consistency (Hair et al., 2019).

Data analysis was performed using IBM SPSS Statistics version 22. The analysis included classical


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assumption tests (normality, multicollinearity, and heteroscedasticity) to ensure the data were suitable for regression modeling. Multiple linear regression was then employed to examine the effects of independent variables on the dependent variable, as this method allows testing the predictive relationships among continuous variables. The t-test (partial) and F-test (simultaneous) were used to evaluate individual and joint effects of independent variables, respectively, while the coefficient of determination ($R^2$) was calculated to assess the explanatory power of the model (Hair et al., 2019).

The hypotheses were formulated based on prior empirical findings that emphasize the role of perception in shaping user behavior. TAM identifies perceived usefulness and perceived ease of use as the two primary determinants of technology acceptance (Davis, 1989). Empirical studies have shown a significant positive effect of these variables on technology adoption and user intention across various contexts (Lusiono & Suharman, 2017; Paradisha et al., 2025; Saputra & Rekarti, 2021). Based on the conceptual framework (Figure 1) and empirical evidence, the hypotheses of this study are as follows:

H1 : Perceived usefulness has a positive and significant effect on the intention to use the Livin' by Mandiri application.

H2 : Perceived ease of use has a positive and significant effect on the intention to use the Livin' by Mandiri application.

H3 : Perceived usefulness and perceived ease of use simultaneously have a positive and significant effect on the intention to use the Livin' by Mandiri application.

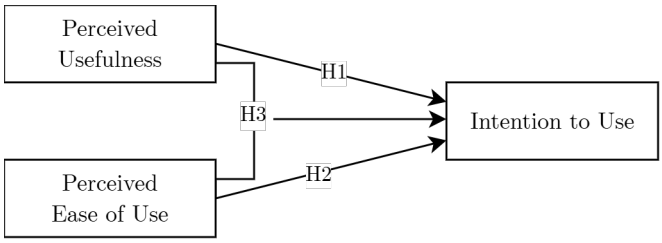


Figure 1. The research model depicting the variable relationship

## III. Results and Discussion

### 1. Respondent Profile

User characteristics play a crucial role in shaping the level of adoption and usage behavior of digital applications in the context of digital technology acceptance. Based on the collected data, the majority of respondents in this study belong to the productive age group, possess higher education backgrounds, and actively engage with digital banking technologies. Table 1 presents the characteristics of respondents by age.

Table 1. Respondents Profile by Age

| No | Age | Respondent |
|---|---|---|
| 1 | 17-27 Years Old | 28 |
| 2 | 28-38 Years Old | 30 |
| 3 | 39-49 Years Old | 25 |
| 4 | >50 Years Old | 17 |
| | Total | 100 |

Table 1 shows that, demographically, most respondents fall within the 28–38-year age range (30%), followed by those aged 17–27 years (28%), 39–49 years (25%), and 50+ years (17%). In terms of gender, female respondents predominate with 54 individuals (54%), while male respondents account for 46 individuals (46%). Regarding occupation, most respondents are employed, including civil servants, private-sector employees, and entrepreneurs (53 respondents), followed by university students (22 respondents),


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homemakers (10 respondents), and retirees (5 respondents). The following is the profile of respondents classified by occupation (Table 2).

Table 2. Respondents Profile by Age

| No | Occupation | Respondent |
|---|---|---|
| 1 | Collager | 22 |
| 2 | Entreprenur | 21 |
| 3 | Civil Servant | 16 |
| 4 | Public Enterpraise Worker | 16 |
| 5 | Private Enterprise Worker | 20 |
| 6 | Ritairee | 5 |
| | Total | 100 |

Table 2 shows the respondent profile, with 22 collages in the top position and five ritaree in the bottom. This composition reflects a high level of readiness and adaptability toward digital innovation. Accordingly, the respondents' profile is considered relevant and representative within the study's context, which focuses on digital technology acceptance, particularly concerning the use of the Livin' by Mandiri application.

## 2. Validity Test

Data validity is determined by the loading factor and KMO values, which must be greater than 0.60. Table 3 shows the results of the validity test for the variables Perceived Usefulness (X1), Perceived Ease of Use (X2), and Intention to Use (Y).

Table 3. Validity Test Results

| **Variable** | **Items** | **KMO Measuring of Sampling Adequacy** | **Loading Fact** | **Description** |
|---|---|---|---|---|
| Perceived Usefulness (X1) | X1.1 | 0.663 | 0.640 | Valid |
| | X1.2 | | 0.722 | |
| | X1.3 | | 0.619 | |
| | X1.4 | | 0.674 | |
| Perceived Ease of Use (X2) | X2.1 | 0.716 | 0.734 | Valid |
| | X2.2 | | 0.726 | |
| | X2.3 | | 0.688 | |
| Intention to Use (Y) | Y.1 | 0.702 | 0.653 | Valid |
| | Y.2 | | 0.742 | |
| | Y.3 | | 0.726 | |
| | Y.4 | | 0.689 | |

The validity test results presented in Table 3 indicate that all items for the variables Perceived Usefulness (X1), Perceived Ease of Use (X2), and Intention to Use (Y) have factor loadings greater than 0.60 and KMO values exceeding 0.60. This finding demonstrates that all indicators are valid and suitable for measuring the research constructs.

## 3. Reliability Test

After the instrument validity test is completed, the next step is reliability testing. Reliability is assessed using Cronbach's Alpha; data are considered reliable if the value exceeds 0.60. The results of the


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reliability test for the variables Perceived Usefulness (X1), Perceived Ease of Use (X2), and Intention to Use (Y) are presented in detail in Table 4.

Table 4. Cronbach's Alpha and Composite Reliability Results

| Variable | Cronbach's Alpha | Description |
|---|---|---|
| Perceived Usefulness (X1) | 0.691 | Reliable |
| Perceived Ease to Use (X2) | 0.674 | Reliable |
| Intention to Use (Y) | 0.648 | Reliable |

The reliability test results shown in Table 4 indicate that the Cronbach's Alpha values for each variable are 0.691 (X1), 0.674 (X2), and 0.648 (Y), all of which exceed the threshold of 0.60. Therefore, all instruments are considered reliable and internally consistent.

## 4. Multiple Linear Regression Test

The regression test results presented in Table 5 show an R-square value of 0.463, indicating that 46.3% of the variation in the Intention to Use variable can be explained by Perceived Usefulness and Perceived Ease of Use, while other factors outside the model account for the remaining 53.7%.

Table 5. Coefficient of Determination Results

**Model Summary**

| Model | R | R-square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | |
|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | Sig. F Change |
| 1 | .822a | .463 | .764 | 1.683 | .463 | 14.356 | .000 |

a. Predictors: (Constant), Perceived Usefulness, Perceived Ease to Use

The results of the simultaneous test (ANOVA) presented in Table 6 show an F-value of 4.739 with a significance level of $0.001 < 0.05$, indicating that Perceived Usefulness and Perceived Ease of Use together have a significant effect on Intention to Use.

Table 6. Simultaneous Test (F-Test)

**ANOVA[b]**

| No. | Model | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 255.586 | 2 | 73.195 | 4.739 | .001 |
| | Residual | 2402.604 | 97 | 22.902 | | |
| | Total | 2658.190 | 99 | | | |

a. Predictors (Constant) Perceived Usefulness, Perceived Ease to Use

Table 7. Hypothesis Test

| Hypothesis | Variable | t-statistic | t-table | Description |
|---|---|---|---|---|
| H1 | Perceived Usefulness → Intention to Use | 2.746 | 1.660 | Accepted |
| H2 | Perceived Ease to Use → Intention to Use | 2.762 | 1.660 | Accepted |


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Table 8. Hypothesis Test

| Hypothesis | Variable | F-statistic | F-table | Description |
|---|---|---|---|---|
| H3 | Perceived Usefulness, Perceived Ease to Use → Intention to Use | 4.739 | 3.090 | Accepted |

Partially, the t-test results presented in Table 7 indicate that Perceived Usefulness has a significant effect on Intention to Use (t-value = 2.746 > t-table = 1.660; p = 0.007 < 0.05). Similarly, Perceived Ease of Use also exerts a significant influence on Intention to Use (t-value = 2.762 > t-table = 1.660; p = 0.012 < 0.05). Simultaneously, the F-test results presented in Table 8 describe that Perceived Usefulness and Perceived Ease of Use have a positive and significant effect on Intention to Use (F-value).

The research findings demonstrate that Perceived Usefulness and Perceived Ease of Use have a positive and significant impact on Intention to Use the Livin' by Mandiri application. The direction of this relationship is consistent with the TAM (Davis, 1989), in which both constructs serve as key determinants of technology adoption. The adjusted $R^2$ value of 0.764 indicates that these two variables collectively explain approximately 76.4% of the variance in intention to use the application among Livin' by Mandiri users in Makassar. This implies that when users perceive the application as both beneficial and easy to use, their likelihood of adopting digital banking services increases. These findings also reflect that the acceptance of digital banking technology in Makassar is strongly influenced by perceived usefulness and system convenience, in line with the adaptive characteristics of Indonesia's urban population toward digital innovation.

These results are consistent with research showing that Perceived Usefulness and Perceived Ease of Use are the primary predictors of mobile banking adoption intention (Abdennebi, 2023). A similar pattern is observed among Livin' by Mandiri users in Makassar, who identify ease of feature access, payment integration, and time efficiency as the main benefits that encourage application use. This aligns with previous findings highlighting perceived usefulness as the dominant factor influencing digital banking adoption (Alalwan et al., 2017; Malaquias & Silva, 2020). In Indonesia's urban society context, perceived benefits extend beyond transactional efficiency and time savings to encompass broader financial accessibility and a shift toward a digital lifestyle among productive age groups.

Additionally, Perceived Ease of Use is also shown to have a positive and significant effect on the Intention to Use the Livin' by Mandiri application. The easier the application is to use, the more likely users are to continue using it. Perceived ease of use encompasses not only the technical aspects of operation but also comfort, clarity of the transaction flow, and accessibility to banking features. These findings are in agreement with studies showing that user-friendly interfaces, straightforward navigation, and clear features are essential contributors to forming positive perceptions of digital banking systems (Candrawati & Widiastuti, 2024; Martínez-Navalón et al., 2023). In the context of Livin' by Mandiri, this ease is reflected in the intuitive application design, integrated payment features such as QRIS, and convenient access to investment and recurring payment services.

## IV. Conclusion

This study concludes that Perceived Usefulness and Perceived Ease of Use exert a positive and significant influence on users' Behavioral Intention to Use the Livin' by Mandiri application. The findings reaffirm the relevance of the TAM in explaining digital banking adoption behavior, in which users are more likely to accept and use a technology when they perceive it as both beneficial and easy to use. These results have meaningful implications for digital banking developers and service providers, enabling them to enhance the functional value of their applications while simultaneously improving the user experience. Enhancing features that align with customer needs, simplifying navigation, increasing service accessibility speed, and integrating cross-platform transactions are key strategies for fostering user loyalty and ensuring sustainable engagement with digital banking applications. Furthermore, communication strategies emphasizing the benefits and ease of use should be optimized to strengthen the public's positive perceptions of digital banking services.


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## Declaration

This article was written by authors involved in this research. The authors declare that they have no conflicts of interest in writing this article.

## References

Abdennebi, H. B. (2023). M-banking adoption from the developing countries perspective: A mediated model. *Digital Business*, *3*(2), 100065. https://doi.org/10.1016/j.digbus.2023.100065

Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*, *37*(3), 99–110. https://doi.org/10.1016/j.ijinfomgt.2017.01.002

Baetens, J. (2015). Paper Knowledge: Toward a Media History of Documents. *Leonardo*, *48*(1), 96–97. https://doi.org/10.1162/LEON_r_00947

Candrawati, T., & Widiastuti, R. (2024). The Influence of Percieved Usefulness, Percieved Ease of Use, and Percieved Risk on the Level of Customer Satisfaction in Using Internet Banking: Study on Deposit Customers of Bank Syariah Indonesia KCP Malang Kawi. *International Journal of Environmental, Sustainability, and Social Science*, *5*(1), 139–146. https://doi.org/10.38142/ijesss.v5i1.984

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, *13*(3), 319–340. https://doi.org/10.2307/249008

Febisatria, A., & Adwishanty, P. R. (2025). Analisis Persepsi Konsumen terhadap Penggunaan Aplikasi Livin by Mandiri. *Jurnal Ilmiah Manajemen, Bisnis dan Kewirausahaan*, *5*(2), 243–255. https://doi.org/10.55606/jurimbik.v5i2.1078

Febisatria, A., & Liliyan, A. (2024). Analisis Persepsi Konsumen terhadap Penggunaan Aplikasi Mobile JKN. *Jurnal Ilmiah Ekonomi dan Manajemen*, *2*(2), 384–394. https://doi.org/10.61722/jiem.v2i2.976

Gardner, C., & Amoroso, D. (2004). Development of an Instrument to Measure the Acceptance of Internet Technology by Consumers. *37th Annual Hawaii International Conference on System Sciences, 2004. Proceedings of The*, 10 pp. https://doi.org/10.1109/HICSS.2004.1265623

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (Eighth edition). Cengage.

Hanafizadeh, P., Behboudi, M., Abedini Koshksaray, A., & Jalilvand Shirkhani Tabar, M. (2014). Mobile-Banking Adoption by Iranian Bank Clients. *Telematics and Informatics*, *31*(1), 62–78. https://doi.org/10.1016/j.tele.2012.11.001

Ho, H., Han, S.-M., Cha, J., & Pham, L. (2025). Mobile Banking Customer Satisfaction and Loyalty: The Roles of Technology Readiness. *Journal of Risk and Financial Management*, *18*(7), 403. https://doi.org/10.3390/jrfm18070403

Lemeshow, S. (1979). The Use of Unique Statistical Weights for Estimating Variances with the Balanced Half-Sample Technique. *Journal of Statistical Planning and Inference*, *3*(4), 315–323. https://doi.org/10.1016/0378-3758(79)90027-2

Lusiono, E. F., & Suharman, S. (2017). Analisis Penerimaan Aplikasi SISKEUDES di Lingkungan Pemerintah Daerah Kabupaten Sambas. *Jurnal Akuntansi, Ekonomi dan Manajemen Bisnis*, *5*(2), 163. https://doi.org/10.30871/jaemb.v5i2.535

Malaquias, R. F., & Silva, A. F. (2020). Understanding the Use of Mobile Banking in Rural Areas of Brazil. *Technology in Society*, *62*, 101260. https://doi.org/10.1016/j.techsoc.2020.101260

Martínez-Navalón, J.-G., Fernández-Fernández, M., & Alberto, F. P. (2023). Does Privacy and Ease of Use Influence User Trust in Digital Banking Applications in Spain and Portugal? *International Entrepreneurship and Management Journal*, *19*(2), 781–803. https://doi.org/10.1007/s11365-023-00839-4

Paradisha, S. M., Setiawan, A., & Djajadikerta, H. (2025). Pengaruh Persepsi Kemudahan Penggunaan, Manfaat, dan Keamanan terhadap Loyalitas Pengguna Mobile Banking dengan Minat dan Kepuasan Pengguna sebagai Variabel Mediasi. *GEMILANG: Jurnal Manajemen dan Akuntansi*, *5*(2), 402–420. https://doi.org/10.56910/gemilang.v5i2.2344

Saputra, H., & Rekarti, E. (2021). The Effect of Perceived Usefulness, Perceived Ease of Use, and Security on Customer Intention to Use Mobile Banking at PT. Bank Negara Indonesia (BNI) Tbk. Jakarta. *International Journal of Innovative Science and Research Technology*, *6*(8), 44–52. https://ijisrt.com/the-effect-of-perceived-usefulness-perceived-ease-of-use-and-security-on-customer-intention-to-use-mobile-banking-at-pt-bank-negara-indonesia-bni-tbk-jakarta

Sawa, H., Prayoga, R., & Sopian, N. (2024). Analysis of Mobile Banking Application Usage Acceptance Using the Technology Acceptance Model (TAM) Approach. *Educational Researcher Journal*, *1*(3), 14–27. https://doi.org/10.71288/educationalresearcherjournal.v1i3.17