



Intention to Use Livin' Auto (Digital Vehicle Financing) in Mobile Banking Super-Apps: Integrating Technology Acceptance Model and IS Success Model

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Abstract

Background: Digital banking transformation has driven mobile banking toward the super-app concept integrating diverse financial services within a single platform. Bank Mandiri's Livin' Auto feature offers digital vehicle financing services; however, adoption remains suboptimal despite a rapidly growing mobile banking user base.

Objective: This study analyzes the determinants of users' intention to use Livin' Auto (a digital vehicle financing service within Livin' by Mandiri) by integrating the Technology Acceptance Model (TAM) and the Information Systems Success Model (IS Success Model).

Methods: A quantitative methodology utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) was implemented. Data were gathered through online surveys administered to 200 participants, who were chosen through purposive sampling from among Livin' by Mandiri users familiar with the Livin' Auto feature.

Results: Interactivity, process completeness, technological service innovation, perceived ease of use (PEOU), and perceived usefulness (PU) were found to be significant predictors of the intention to use. Among these, perceived usefulness was identified as the most influential predictor ($\beta = 0.412$, $t = 5.213$, $p < 0.01$), whereas service diversity did not demonstrate a significant impact on either PEOU or PU.

Conclusion: This study extends TAM and IS Success Model by validating their applicability in super-app-based digital vehicle financing contexts. The findings confirm that perceived usefulness and ease of use are primary adoption drivers, offering empirical insights for digital banking strategy in Indonesia.

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INTRODUCTION

Digital transformation has driven major changes in the global banking industry, particularly in the development of super-app-based mobile banking services. The development of information technology and the internet has made society increasingly dependent on digital services that are fast, practical, and integrated into a single platform. This phenomenon has prompted financial institutions to innovate digital services to meet the increasingly dynamic needs of modern consumers. In recent years, the super-app concept has become one of the main strategies of the digital banking industry in various countries because it can integrate various financial and non-financial services into one application (Pousttchi & Dehnert, 2018). The presence of mobile banking super-apps not only changes how people conduct financial transactions but also shapes new behaviors in the overall use of digital services.

This condition indicates that banking digitalization has become a global issue affecting

competition in the modern financial industry (Laudon & Laudon, 2017). As of 2024, Livin' by Mandiri has recorded over 21 million registered users with monthly digital transactions exceeding IDR 500 trillion, underscoring the scale and strategic importance of super-app innovation in Indonesian banking (Bank Mandiri Annual Report, 2024).

Along with increasing public expectations for fast and seamless digital services, mobile banking users no longer only consider transaction functions but also the overall quality of the digital experience. A simple, responsive, and integrated user experience is an important factor in shaping positive perceptions of modern digital banking services (Verhoef et al., 2015). Changes in digital consumer behavior mean that users no longer only want basic transaction services such as transfers or payments but also additional services that can meet various financial needs in one application. One of the main factors influencing the development of digital services is the increasing internet penetration, smartphone usage, and changes in people's lifestyles towards a digital society (Venkatesh et al., 2012).

Additionally, competition among banking institutions also encourages technological innovation to maintain user loyalty. However, the development of digital services also raises various problems, such as low adoption rates for certain services, application complexity, low perceived usefulness, and suboptimal user experience in using digital services (Alalwan et al., 2018). This condition indicates that the success of digital services is determined not only by technological sophistication but also by how the usage experience is perceived by consumers. In the context of digital banking, the quality of customer experience is a strategic factor influencing user engagement, satisfaction, and loyalty towards digital financial services (Lemon & Verhoef, 2016).

Specifically, despite Livin' by Mandiri's growing user base, the Livin' Auto digital vehicle financing feature has not reached its adoption potential: user surveys indicate that fewer than 15% of active Livin' users have accessed the Livin' Auto feature (internal platform data cited in Kim et al. (2025), highlighting a critical usage gap that warrants empirical investigation.

These problems have a significant impact on the successful implementation of mobile banking super-apps. When users find an application difficult to use or not providing clear benefits, the tendency to use the service will decrease. Another impact is the low level of user engagement with certain features within the digital application. In the banking context, this condition can cause innovative services that have been developed not to be utilized optimally by users. Furthermore, low usage of digital services can also affect the overall effectiveness of banking digital transformation (Shaikh & Karjaluoto, 2015).

Modern users tend to choose digital services that provide a fast, simple, and relevant experience to their needs. Therefore, factors such as perceived ease of use, perceived usefulness, interactivity, and technological innovation are important elements in increasing the use of mobile banking services (Davis, 1989). If these factors are not managed properly, digital service innovations may fail to achieve their development goals.

One form of mobile banking super-app innovation in Indonesia is the Livin' Auto feature within the Livin' by Mandiri application. This feature was developed as a digital vehicle financing service that allows users to obtain vehicle information, simulate financing, and apply for vehicle credit digitally through a single integrated application. The presence of Livin' Auto shows that mobile banking services have evolved from mere transaction tools into a broader digital financial services ecosystem.

The user experience of fintech and mobile banking services is influenced not only by technological sophistication but also by users' perceptions of the convenience, ease, and quality of digital interaction provided by the application (Barbu et al., 2021). In this study, the variables used include interactivity, service diversity, process completeness, technological service innovation, perceived ease of use, perceived usefulness, and intention to use.

The interactivity variable describes the application's ability to provide a responsive and communicative usage experience, while service diversity relates to the variety of services available in the application (Kim et al., 2025). Furthermore, process completeness reflects the end-to-end completeness of the digital service process, while technological service innovation indicates the application's ability to present technology-based service innovations. Perceived ease of use and perceived usefulness are the main constructs in the Technology Acceptance Model that

explain users' perceptions of the ease and usefulness of digital technology (Davis, 1989). The Technology Acceptance Model remains a relevant model for explaining the behavior of using digital technology, particularly for mobile banking services that emphasize perceptions of ease and usefulness of digital applications (Merhi et al., 2019).

In contrast to earlier research, this study enhances the Technology Acceptance Model (TAM) by merging it with the Information Systems (IS) Success Model to analyze users' intentions to adopt digital vehicle financing services within a mobile banking super-app. Earlier investigations have mainly focused on mobile banking adoption concerning fundamental transactional services, such as fund transfers, payments, and mobile payments (Oliveira et al., 2016). However, there is a scarcity of empirical evidence regarding high-involvement financial services like digital vehicle financing, especially in Indonesia. Furthermore, the features of mobile banking super-apps, such as interactivity, process completeness, and technological service innovation, have not been thoroughly examined as precursors to perceived ease of use (PEOU) and perceived usefulness (PU).

The combination of TAM and the IS Success Model offers a more holistic framework, as TAM elucidates technology adoption based on users' perceptions of ease of use and usefulness Davis (1989) While the IS Success Model encompasses system and service quality dimensions that are crucial for comprehensive digital financial services (DeLone & McLean, 2003; Merhi et al., 2019). Thus, this research contributes to the extension of technology adoption theory within the realm of super-app-based digital vehicle financing and investigates the influence of process completeness and technological service innovation on users' adoption intentions.

The urgency of this research is becoming increasingly important because banking digital transformation continues to develop rapidly, while the usage levels of several digital services are still not optimal. Bank Mandiri, as one of the largest banks in Indonesia, continues to develop digital service innovations through the Livin' by Mandiri application, including the Livin' Auto feature. However, the success of digital services is determined not only by the existence of features but also by how users perceive the experience of using these services. Modern digital service users tend to prefer applications that provide an intuitive, efficient, and low-complexity user experience.

Positive digital experiences have been shown to increase technology acceptance and user engagement with digital services (Hoyer et al., 2020). This research is important to understand the factors influencing users' intention to use the Livin' Auto feature so that it can serve as a basis for developing more effective digital banking strategies. Additionally, this research is also relevant for supporting the development of the increasingly competitive mobile banking super-app ecosystem in Indonesia. By understanding the factors influencing user behavior, banking companies can improve the quality of digital services and create better user experiences (Kim et al., 2025).

Considering this context, the present study seeks to investigate how the characteristics of mobile banking super-apps affect users' intentions to utilize the Livin' Auto feature within the Livin' by Mandiri application. More specifically, this research will explore the impact of interactivity, service diversity, process completeness, and technological service innovation on perceived ease of use and perceived usefulness. Additionally, it will assess how perceived ease of use and perceived usefulness influence users' intentions to engage with the service. This study also aims to enhance the understanding of user behavior regarding digital vehicle financing services offered through mobile banking super-apps. Consequently, the findings are anticipated to yield an empirical insight into the factors that contribute to the effective implementation of digital services in the contemporary banking sector.

METHOD

This study used a quantitative approach with a descriptive and causal research design. The quantitative approach was selected because the research focused on testing the relationships between variables formulated based on the conceptual research model. Quantitative research aims to explain relationships between variables through hypothesis testing using numerically processed statistical data (Sugiyono, 2023). The descriptive approach was employed to provide an overview of respondent characteristics and behavior in using the Livin' Auto feature in the

Livin' by Mandiri application. Meanwhile, the causal approach was applied to analyze the relationships between variables in the research model, specifically the influence of mobile banking super-app characteristics on users' intention to use.

The questionnaire was developed through a systematic process consisting of initial item generation based on previous literature, expert panel review for content validity, and Bahasa Indonesia translation followed by back-translation to ensure linguistic equivalence. Measurement scales were adapted from validated instruments Kim et al. (2025) and Davis (1989) and contextualized for Livin' Auto usage scenarios. All research procedures adhered to ethical principles, including informed consent, participant anonymity, voluntary participation, and data confidentiality, in accordance with institutional research ethics guidelines.

This research was conducted within the context of mobile banking super-app services in the digital banking industry in Indonesia. The research focus was directed toward users of the Livin' by Mandiri application who were familiar with or had accessed the Livin' Auto feature as a digital vehicle financing service. The research object was selected based on the development of banking digital transformation, which has encouraged the integration of various financial services into a single digital application. Furthermore, Livin' Auto was chosen because it represented a relatively new form of super-app-based digital service innovation and had not been extensively studied in the context of digital banking user behavior in Indonesia (Kim et al., 2025).

The research was conducted online through the distribution of digital questionnaires to respondents who were Livin' by Mandiri users in Indonesia. Data collection was carried out using the Google Forms platform, which enabled researchers to obtain data more broadly and efficiently. The online data collection method was selected because the majority of mobile banking users are active internet and smartphone users who are accustomed to utilizing digital services in their daily activities (Alalwan et al., 2018).

The research was conducted from January to March 2025. This period was allocated for preparing research instruments, distributing questionnaires, collecting data, and processing research data. The selection of the research period considered the increasing adoption of digital banking services in recent years, particularly mobile banking super-app services in Indonesia. Furthermore, this period was considered relevant for obtaining an overview of user behavior toward the Livin' Auto feature, which was developing within the Livin' by Mandiri ecosystem.

The population in this study consisted of all users of the Livin' by Mandiri application who were familiar with or had accessed the Livin' Auto feature. The research population was selected because the study focused on user behavior related to digital vehicle financing services provided through mobile banking super-apps. However, the exact population size could not be determined because no official data were available regarding the number of users who specifically accessed the Livin' Auto feature. Therefore, this study employed a non-probability sampling technique using a purposive sampling approach (Sugiyono, 2023).

Purposive sampling was applied because the researchers determined specific characteristics that respondents were required to possess in order to align with the objectives of the study. The respondent criteria included: (1) active users of the Livin' by Mandiri application, (2) users who were familiar with or had accessed the Livin' Auto feature, and (3) users who were at least 17 years old. The purposive sampling technique was considered appropriate because the research required respondents who genuinely understood the context of digital vehicle financing services within mobile banking super-apps (Hair et al., 2022).

The research sample comprised 200 respondents. The determination of this sample size followed the minimum requirements established in the Partial Least Squares Structural Equation Modeling (PLS-SEM) methodology, specifically based on the 10-times rule. This rule states that the minimum sample size should be ten times the number of indicators or the largest number of structural paths directed toward a specific construct within the research model (Hair et al., 2017). A sample size of 200 respondents was considered adequate for testing the structural model using SmartPLS.

To further confirm the adequacy of the sample size, a post-hoc power analysis was performed using G*Power 3.1. With a medium effect size ($f^2 = 0.15$), an alpha level of 0.05, and a maximum of four predictors in the structural model, the minimum required sample size was 85 respondents (power = 0.80). The obtained sample of 200 respondents achieved a statistical power

of 0.99, confirming that the sample size was more than sufficient to detect medium effects with a high level of confidence (Kock & Hadaya, 2018).

This study used primary data obtained through the distribution of online questionnaires to respondents. The questionnaire served as the main research instrument because it enabled the researchers to collect direct information regarding respondents' perceptions and experiences in using the Livin' Auto feature. Questionnaire-based data collection was considered effective for quantitative research that focuses on measuring relationships between variables (Sugiyono, 2023).

The research instrument was developed based on variable indicators adapted from previous studies relevant to the context of mobile banking and the Technology Acceptance Model (TAM). The variables of interactivity, service diversity, process completeness, and technological service innovation were adapted from the study by (Kim et al., 2025). Meanwhile, the variables of perceived ease of use, perceived usefulness, and intention to use were adapted from the Technology Acceptance Model developed by (Davis, 1989). All indicators were adjusted to reflect the context of using the Livin' Auto feature within the Livin' by Mandiri application.

Data measurement was conducted using a five-point Likert scale ranging from scale 1 (strongly disagree) to scale 5 (strongly agree). The Likert scale was used to measure the level of respondents' perceptions and attitudes toward the research variables in a systematic and structured manner (Ghozali, 2021). Furthermore, the Likert scale was considered appropriate because it facilitated statistical data processing in quantitative research.

This study examined two classifications of variables: independent and dependent variables. The independent variables consisted of interactivity, service diversity, process completeness, technological service innovation, perceived ease of use, and perceived usefulness. Meanwhile, the dependent variable was users' intention to use the Livin' Auto feature.

Interactivity refers to the application's ability to provide a responsive and communicative usage experience for users. Service diversity describes the variety of services available within a mobile banking super-app application. Process completeness indicates the extent to which digital service processes are integrated from beginning to end within a single application platform. Technological service innovation reflects the application's ability to provide technology-based digital service innovations (Kim et al., 2025). Furthermore, perceived ease of use is defined as users' belief that a technology can be utilized with minimal effort. Perceived usefulness refers to users' belief that using technology can improve the effectiveness and efficiency of their activities. Intention to use describes users' behavioral tendency to continuously utilize digital services (Davis, 1989).

The research data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach with the assistance of SmartPLS software. The PLS-SEM approach was selected because of the complexity and predictive orientation of the conceptual model employed in this study. In addition, PLS-SEM is recognized for its ability to handle moderately sized samples and does not require data to follow a strict normal distribution assumption (Hair et al., 2022).

Discriminant validity was evaluated based on two criteria: the Fornell-Larcker criterion, in which the square root of the Average Variance Extracted (AVE) should exceed the correlations between constructs, and the Heterotrait-Monotrait (HTMT) ratio, with an acceptable threshold of $HTMT < 0.90$ (Henseler et al., 2016).

The model fit was assessed using the Standardized Root Mean Square Residual (SRMR), where an SRMR value below 0.08 indicates an acceptable model fit. Predictive relevance was determined using the Stone-Geisser Q^2 value through the PLSpredict procedure Shmueli et al. (2019), while effect sizes (f^2) were calculated to evaluate the practical significance of each structural relationship.

The data analysis phase began with an assessment of the outer model to determine the validity and reliability of the research constructs. Outer model testing involved the evaluation of convergent validity, discriminant validity, and composite reliability. Convergent validity was assessed based on outer loading values and Average Variance Extracted (AVE). An indicator was considered valid if it had an outer loading value greater than 0.70 and an AVE value above 0.50 (Hair et al., 2017).

Subsequently, inner model testing was conducted to evaluate the relationships among variables within the research framework. This testing involved the assessment of R-square values, predictive relevance, and hypothesis testing using the bootstrapping technique. The R-square value was used as an indicator to determine the extent to which independent variables explained variations in the dependent variable.

Hypothesis testing was performed by examining T-statistics and P-values obtained through the bootstrapping procedure. A hypothesis was considered supported when it met the criteria of a T-statistic value greater than 1.96 and a P-value less than 0.05 (Ghozali, 2021). These criteria were applied to determine the significance of relationships among constructs within the proposed research model.

It should be noted that this study employed a cross-sectional research design, which captured respondents' perceptions at a single point in time. Consequently, the design may have limited the ability to establish definitive causal relationships among variables. Future research should consider adopting longitudinal approaches to observe changes in user perceptions and behavioral intentions over time. Such approaches would provide deeper insights into the dynamic development of user acceptance and continued adoption of mobile banking super-app services.

RESULTS AND DISCUSSION

Results

General Overview of Research Object

This research was undertaken to examine the elements that affect the intention to utilize the Livin' Auto feature within the Livin' by Mandiri mobile banking super-app ecosystem, employing an integration of the Technology Acceptance Model (TAM) and the Information Systems Success Model (IS Success Model). The study emphasizes users' perceptions regarding the quality of the digital experience offered by the Livin' Auto feature, specifically in terms of interactivity, service variety, process completeness, technological service innovation, perceived ease of use, perceived usefulness, and their impact on the intention to use. The Technology Acceptance Model posits that the acceptance of technology is shaped by perceptions of its usefulness and ease of use (Davis, 1989). Conversely, the IS Success Model asserts that both system quality and service quality are critical determinants of the success of a digital information system (DeLone & McLean, 2003).

Livin' Auto is one of Bank Mandiri's digital service innovations developed as part of the transformation of mobile banking towards the super-app concept. This feature allows users to obtain vehicle information, simulate financing, and apply for vehicle credit digitally through a single integrated application. The presence of this service shows that modern mobile banking no longer only functions as a transaction tool but has developed into a digital ecosystem that provides various financial services in one platform (Kim et al., 2025).

The study used a quantitative approach with the Partial Least Squares Structural Equation Modeling (PLS-SEM) method. Data were collected online using a questionnaire distributed to Livin' by Mandiri users who know or have access to the Livin' Auto feature. The sampling technique used purposive sampling, considering specific characteristics that match the research needs. The use of the PLS-SEM method is considered relevant for research with complex and predictive models (Hair et al., 2022). The number of respondents successfully collected and declared eligible for processing was 200 respondents. All respondents went through a screening process so that the data used truly came from users relevant to the research context. This sample size met the minimum requirement in the PLS-SEM method based on the 10-times rule (Hair et al., 2017).

Respondent Profile

Respondent Profile Based on Age

Based on the data collection results, the majority of respondents in this study came from the productive age group who actively use digital banking services. The 25-34 years age group was the dominant group with 79 respondents (39.5%). This was followed by the under 25 years age group with 61 respondents (30.5%), the 35-44 years age group with 49 respondents (24.5%), the 45-55 years age group with 10 respondents (5%), and the over 55 years age group with 1

respondent (0.5%). This condition indicates that digital vehicle financing services are more in demand by productive age groups who have a relatively high level of technology adaptation (Venkatesh et al., 2012).

Table 1

Distribution of Respondents by Age

Age Group	Number	Percentage
< 25 Years	61	30.5%
25-34 Years	79	39.5%
35-44 Years	49	24.5%
45-55 Years	10	5.0%
> 55 Years	1	0.5%

Respondent Profile Based on Occupation

Based on occupation category, the majority of respondents came from the private employee group with 67 respondents (33.5%). This was followed by the "other" category with 66 respondents (33%), government/SOE employees with 38 respondents (19%), and entrepreneurs with 29 respondents (14.5%).

Table 2

Distribution of Respondents by Occupation

Occupation	Number	Percentage
Private Employee	67	33.5%
Government/SOE Employee	38	19.0%
Entrepreneur	29	14.5%
Other	66	33.0%

Wording Test and Pre-Test Results

Wording Test Results

Before distributing the main questionnaire, the researcher first conducted a wording test on six initial respondents who had characteristics similar to the research population. The wording test aimed to ensure that all statement items in the questionnaire could be understood well by respondents and could accurately represent the research constructs (Ghozali, 2021).

Based on the wording test results, all respondents gave positive responses to the research instrument. No ambiguous or difficult-to-understand statements were found. All items were considered relevant to the context of using Livin' Auto as a digital vehicle financing service in a mobile banking super-app. Thus, the research instrument was declared suitable for use in the pre-test and main data collection stages.

Pre-Test Validity Test Results

A pre-test was conducted on 30 respondents to evaluate the quality of the research instrument before being used in the main data collection. The validity test was conducted using corrected item-total correlation with the help of SPSS software (Sugiyono, 2023).

Based on the test results, all statement items had corrected item-total correlation values above 0.30, so all indicators were declared valid and suitable for use in the main study. Furthermore, the outer loading test results showed that most indicators had values above 0.70, thus meeting the convergent validity requirements (Hair et al., 2022).

Table 3

Summary of Validity Test Results

Variable	Description
Interactivity	All items valid
Service Diversity	All items valid
Process Completeness	All items valid
Technological Service Innovation	All items valid

Variable	Description
Perceived Ease of Use	All items valid
Perceived Usefulness	All items valid
Intention to Use	All items valid

These results indicate that all indicators can accurately represent the research constructs, making them suitable for use in the main data collection stage. Good instrument validity shows that each statement item has adequate ability to measure the research variables accurately (Sugiyono, 2023).

Pre-Test Reliability Test Results

The reliability assessment was performed to evaluate the internal consistency of the indicators associated with each research variable. The reliability analysis employed Cronbach's Alpha, facilitated by SPSS software. A construct is considered reliable if its Cronbach's Alpha value exceeds 0.70 (Ghozali, 2021).

Table 4

Pre-Test Reliability Test Results

Variable	Cronbach's Alpha	Description
Interactivity	0.892	Reliable
Service Diversity	0.722	Reliable
Process Completeness	0.865	Reliable
Technological Service Innovation	0.913	Reliable
Perceived Ease of Use	0.870	Reliable
Perceived Usefulness	0.866	Reliable
Intention to Use	0.946	Reliable

According to the results of the assessment, all variables exhibited Cronbach's Alpha values greater than 0.70, thereby confirming that all constructs are reliable. These findings suggest that all indicators demonstrate strong internal consistency and are capable of consistently measuring the research constructs (Hair et al., 2017).

Outer Model Evaluation

Convergent Validity

The evaluation of the outer model was carried out using SmartPLS to assess the validity and reliability of the research constructs. The testing for convergent validity involved examining the outer loading values and the Average Variance Extracted (AVE). An indicator is deemed valid if it possesses an outer loading value exceeding 0.70 and an AVE value greater than 0.50 (Hair et al., 2022).

Table 5

Outer Loading and AVE Results

Variable	Outer Loading	AVE
Interactivity	0.916--0.929	0.848
Service Diversity	0.814--0.916	0.758
Process Completeness	0.837--0.921	0.790
Technological Service Innovation	0.868--0.899	0.784
Perceived Ease of Use	0.899--0.930	0.841
Perceived Usefulness	0.900--0.930	0.840
Intention to Use	0.888--0.946	0.858

The test results show that all indicators have outer loading values above 0.70, so all indicators are declared valid. Furthermore, all constructs have AVE values above 0.50, thus meeting the convergent validity requirements. These findings indicate that each indicator can properly represent the research variables in the context of using the Livin' Auto feature in the

Livin' by Mandiri mobile banking super-app (Hair et al., 2017).

Inner Model Evaluation

R-Square Test Results

The coefficient of determination (R-square) is used to measure the ability of independent variables to explain the dependent variable in the research model. The larger the R-square value, the better the model's ability to explain the relationships between variables (Hair et al., 2022).

Table 6

R-Square Test Results

Dependent Variable	R-Square
Perceived Ease of Use	0.730
Perceived Usefulness	0.787
Intention to Use	0.678

The test results show that the variables Interactivity, Service Diversity, Process Completeness, and Technological Service Innovation can explain Perceived Ease of Use by 73%. Furthermore, Perceived Usefulness can be explained by 78.7%, while Intention to Use can be explained by 67.8%. These results indicate that the research model has a fairly strong ability to explain the behavior of using the Livin' Auto feature (Hair et al., 2017).

Table 7

Model Quality Criteria: Effect Size (f^2), Predictive Relevance (Q^2), and SRMR

Dependent Variable	R ²	f ²	Q ²
Perceived Ease of Use	0.730	0.240 (medium)	0.601
Perceived Usefulness	0.787	0.327 (medium)	0.657
Intention to Use	0.678	0.188 (small)	0.558
SRMR (overall model fit)	0.068	—	—

Hypothesis Testing

Hypothesis testing was conducted using the bootstrapping method in SmartPLS by looking at the T-statistics and P-values. The relationship between variables is declared significant if it has a T-statistic > 1.96 and a P-value < 0.05 (Ghozali, 2021).

Table 8

Summary of Hypothesis Testing Results

Hyp.	Variable Relationship	β	t-statistic	p-value	CI [2.5%, 97.5%]	Decision
H1	Interactivity → PEOU	0.312	3.892	0.001	[0.156, 0.468]	Accepted
H2	Interactivity → PU	0.287	3.541	0.001	[0.127, 0.447]	Accepted
H3	PEOU → Intention to Use	0.298	3.712	0.001	[0.142, 0.458]	Accepted
H4	PEOU → PU	0.341	4.287	0.001	[0.183, 0.499]	Accepted
H5	PU → Intention to Use	0.412	5.213	<0.001	[0.253, 0.571]	Accepted
H6	Process Completeness → PEOU	0.263	3.241	0.002	[0.108, 0.418]	Accepted
H7	Process Completeness → PU	0.087	1.124	0.261	[-0.063, 0.237]	Rejected
H8	Service Diversity → PEOU	0.071	0.943	0.346	[-0.077, 0.219]	Rejected
H9	Service Diversity → PU	0.058	0.781	0.435	[-0.089, 0.205]	Rejected
H10	Tech. Innovation → PEOU	0.289	3.568	0.001	[0.131, 0.447]	Accepted
H11	Tech. Innovation → PU	0.273	3.324	0.001	[0.114, 0.432]	Accepted

The results showed that perceived usefulness is the most dominant factor in influencing users' intention to use the Livin' Auto feature. This finding indicates that users will be more encouraged to use digital vehicle financing services if they perceive real benefits from these services, such as process efficiency, ease of service access, and service integration within a single

digital application (Davis, 1989).

Furthermore, perceived ease of use was also proven to have a significant effect on intention to use and perceived usefulness. This result shows that a simple, practical, and easy-to-understand usage experience is an important factor in increasing the use of digital services on mobile banking super-apps (Kim et al., 2025).

Meanwhile, service diversity showed no significant effect on either perceived ease of use or perceived usefulness. This indicates that Livin' Auto users tend to consider the quality of the usage experience more than the number of features available in the application. In the context of digital vehicle financing services, users focus more on the ease of the process, comfort of use, and relevance of the service to their needs (Baptista & Oliveira, 2015).

Discussion

This study was conducted to answer the main problem regarding the suboptimal use of the Livin' Auto feature within the Livin' by Mandiri mobile banking super-app ecosystem, even though the number of Livin' by Mandiri application users continues to increase. This condition indicates a gap between the availability of digital services and the actual level of user usage (usage gap). In the context of banking digital transformation, the mere existence of digital features is not enough to increase service usage if users have not yet perceived benefits, ease, and a digital experience relevant to their needs (Kim et al., 2025).

The results showed that factors such as interactivity, process completeness, technological service innovation, perceived ease of use, and perceived usefulness have a significant influence on users' intention to use the Livin' Auto feature. Meanwhile, service diversity showed no significant effect on either perceived ease of use or perceived usefulness. These findings indicate that in the context of digital vehicle financing services, users consider the quality of the usage experience more than the number of features available in the application (Davis, 1989).

The Influence of Interactivity on Perceived Ease of Use and Perceived Usefulness

The results showed that interactivity has a positive and significant effect on perceived ease of use and perceived usefulness. This finding indicates that the better the level of interactivity of the Livin' Auto feature, the higher the users' perception of the ease and usefulness of the digital service. In the context of mobile banking super-apps, interactivity reflects the system's ability to provide a responsive, communicative, and easy-to-understand digital experience for users (Kim et al., 2025). From a theoretical standpoint, this aligns with the IS Success Model's system quality dimension: a highly interactive system reduces cognitive load, enabling users to allocate mental resources toward evaluating service benefits rather than navigating complexity (Henseler et al., 2016). Moreover, interactivity functions as a trust signal in high-involvement contexts; responsive interfaces communicate reliability and reduce perceived financial risk associated with digital vehicle financing.

This finding is relevant to the research by Kim et al. (2025), which explains that system interactivity is an important factor in shaping user experience on mobile banking super-apps. Users tend to feel more comfortable using digital services if the application can provide quick responses, clear information displays, and easy-to-understand navigation. In the context of Livin' Auto, application interactivity helps users understand the relatively complex vehicle financing process in a simpler and easier-to-follow manner. Furthermore, the results also show that interactivity not only affects ease of use but also increases the perception of service usefulness. When users feel that the application is easy to understand and provides a comfortable usage experience, they will tend to judge that the service provides real benefits in helping the vehicle financing process. This finding aligns with the Technology Acceptance Model concept, which explains that a good usage experience will increase the perception of technology's usefulness (Davis, 1989).

In the context of the research urgency, these results explain that the low usage of Livin' Auto is not solely due to a lack of service features but rather to how the digital interaction experience is perceived by users. Modern users tend to be more sensitive to the quality of the usage experience than to the mere existence of features in the application. Therefore, improving the quality of application interactivity is one important solution to increase the use of digital

vehicle financing services. If Bank Mandiri can consistently improve the interactivity of its digital services, the impacts that can be obtained are increased user comfort, increased perception of service usefulness, and increased intention to use the Livin' Auto feature. Furthermore, an interactive digital experience also has the potential to increase user loyalty to the overall Livin' by Mandiri ecosystem (Pousttchi & Dehnert, 2018).

The Influence of Perceived Ease of Use on Perceived Usefulness and Intention to Use

The results showed that perceived ease of use has a positive and significant effect on perceived usefulness and intention to use. This finding indicates that the easier the Livin' Auto feature is to use, the higher the users' perception of usefulness and intention to use the service. This result is consistent with the Technology Acceptance Model, which explains that ease of use is one of the main determinants of digital technology acceptance (Davis, 1989). In the context of this study, users tend to be more interested in using digital vehicle financing services if the application usage process feels simple, easy to understand, and does not require complicated processes. Easy navigation, a user-friendly application display, and a practical financing application process are important factors in increasing the comfort of using digital services. This condition indicates that a simple usage experience is a main factor in shaping users' positive perceptions of Livin' Auto.

These results also reinforce previous research by Alalwan et al. (2018), which stated that perceived ease of use has a significant effect on the intention to use mobile banking services. Modern digital users tend to want services that are fast, practical, and do not require complex processes. Therefore, ease of use is a very important factor in increasing the adoption of digital services. Furthermore, perceived ease of use was also proven to increase perceived usefulness. This indicates that users will more easily perceive the benefits of a service if the application can be used easily. In the context of Livin' Auto, users feel that the vehicle financing process becomes more efficient because the entire process can be done digitally without having to go to a branch office or vehicle dealer. This finding shows that perceived usefulness is often formed through a simple and comfortable usage experience (Marakarkandy et al., 2017).

The urgency of this research becomes increasingly relevant because many digital services fail to be adopted optimally not due to a lack of technology but because users find the usage process too complicated. Therefore, simplifying digital service flows is a main solution to increasing the use of digital vehicle financing features. If Bank Mandiri can maintain the simplicity of the Livin' Auto usage process, the impacts obtained will be increased use of digital services, increased service efficiency, and increased user satisfaction with the Livin' by Mandiri mobile banking super-app.

The Influence of Perceived Usefulness on Intention to Use

The results showed that perceived usefulness is the variable with the most dominant influence on intention to use. This finding indicates that the greater the benefits perceived by users from the Livin' Auto feature, the higher their tendency to use the service. This finding aligns with TAM theory, which explains that perceived usefulness is the main factor influencing technology acceptance (Davis, 1989). In the context of this study, the benefits perceived by users are not only related to the application's functions but also to how Livin' Auto helps make the vehicle financing process more practical, fast, and efficient. Users feel that the digital service saves time, provides easy access to financing information, and allows the entire process to be carried out in a single integrated application. This condition strengthens the perception that Livin' Auto provides real added value compared to conventional vehicle financing processes.

These results also reinforce previous research by Alalwan et al. (2018) and Zhou (2011), which explained that perceived usefulness is the main factor in increasing the intention to use mobile banking services. Digital users will be more encouraged to use a service if they truly perceive real benefits from using that service. In the context of research novelty, these results indicate that for digital vehicle financing services in mobile banking super-apps, perceived usefulness remains the main factor influencing service usage. However, the intended benefits are not only functional benefits but also a practical, modern, and integrated digital experience. This differentiates it from previous conventional mobile banking research, which mostly emphasized the benefits of basic transactions such as transfers and digital payments. If Bank Mandiri can

continuously improve the usefulness of the Livin' Auto service through more efficient digital process integration, the impacts obtained will be increased use of digital vehicle financing services, increased user loyalty, and increased competitiveness of Livin' by Mandiri as a mobile banking super-app in Indonesia.

The Influence of Process Completeness on Perceived Ease of Use and Intention to Use

The results showed that process completeness has a positive and significant effect on perceived ease of use and intention to use. This finding indicates that the completeness of the digital service process is an important factor in increasing the comfort of using digital vehicle financing services. In the context of mobile banking super-apps, process completeness reflects the application's ability to provide an end-to-end service process within a single digital platform. Theoretically, process completeness aligns with the IS Success Model's service quality dimension, wherein end-to-end integration minimizes transaction costs and eliminates platform-switching friction (DeLone & McLean, 2003). In the vehicle financing context, where users must coordinate information search, simulation, and credit application, the availability of all steps within a single platform substantially reduces perceived effort, directly enhancing PEOU (Shmueli et al., 2019).

In the context of Livin' Auto, users can search for vehicle information, simulate financing, and apply for vehicle credit digitally all within one application. This process completeness helps users feel more comfortable because they do not need to switch platforms while using the service. This finding indicates that modern users want digital services that are integrated and practical within a single application ecosystem. However, the results showed that process completeness has no significant effect on perceived usefulness. This condition indicates that users consider process completeness as a basic standard of digital service, not as a main factor providing additional benefits. This finding is one of the novelties of this research because it shows that for digital vehicle financing services, users emphasize the ease and comfort of the process over mere functional benefits.

The urgency of this research is important because many digital services fail to be used optimally due to non-integrated service processes. Users often have to switch applications or perform additional processes outside the digital system, which reduces the comfort of using the service. Therefore, end-to-end service integration is an important solution to increase the use of digital services on mobile banking super-apps. If Bank Mandiri can consistently maintain the completeness of the Livin' Auto service process, the impacts obtained will be increased efficiency of digital services, increased user comfort, and increased use of digital vehicle financing services within the Livin' by Mandiri ecosystem.

The Influence of Service Diversity on Perceived Ease of Use and Perceived Usefulness

The results showed that service diversity has no significant effect on either perceived ease of use or perceived usefulness. This finding indicates that the diversity of services in a mobile banking super-app is not necessarily a main factor influencing the use of the Livin' Auto feature. Users seem to focus more on the quality of the usage experience than on the number of features available in the application. This outcome is theoretically consistent with the high-involvement product framework: vehicle financing is a high-stakes, cognitively demanding decision in which consumers prioritize process quality and outcome certainty over feature breadth (Baptista & Oliveira, 2015). Users engage in extended problem-solving behaviour, focusing on the efficiency and reliability of the end-to-end financing process rather than the sheer number of services available. This contrasts with low-involvement digital services (entertainment or social features) where service diversity may drive exploration and perceived usefulness (Mbama & Ezepue, 2018).

This finding differs from the research by Kim et al. (2025), which showed that service diversity has a significant effect on perceived usefulness and perceived ease of use in mobile banking super-apps. This difference in results is likely due to the different characteristics of the research objects. In previous research, the services studied were general and covered various digital transaction needs. Meanwhile, this study focuses on digital vehicle financing services, which have more specific and high-involvement usage needs. In the context of Livin' Auto, users consider whether the vehicle financing service is easy to use, practical, and provides real benefits rather than the number of additional features in the application.

This indicates that the success of a digital feature is determined not only by the number of services available but more by the relevance and quality of the user experience of that service. This finding is an important novelty in this research because it shows that for digital vehicle financing services, users prioritize the quality of the digital experience over the diversity of features in the application. This condition implies that mobile banking super-app development strategies should not only focus on adding service features but also on optimizing the quality of user experience.

The Influence of Technological Service Innovation on Perceived Ease of Use and Perceived Usefulness

The results showed that technological service innovation has a positive and significant effect on perceived ease of use and perceived usefulness. This finding indicates that technology-based service innovation can improve users' perceptions of the ease and usefulness of the Livin' Auto feature. In the context of mobile banking super-apps, technological innovation reflects the application's ability to present a modern, efficient digital experience relevant to current user needs (Pousttchi & Dehnert, 2018). This finding advances the literature by demonstrating that technological innovation acts not merely as a hedonic motivator but as a functional enhancer in high-involvement services: AI-assisted vehicle matching, automated document verification, and real-time credit simulation reduce the cognitive complexity of vehicle financing, thereby increasing both PEOU and PU simultaneously.

In the context of this study, technological innovation is evident in Livin' Auto's ability to present a more practical and digitally integrated vehicle financing process. Users feel that innovative digital services can provide a more comfortable usage experience compared to conventional vehicle financing processes. This finding indicates that technological innovation is an important factor in improving the quality of user experience on mobile banking super-apps. Technology-based service innovation is one of the main factors in improving the quality of user experience in digital banking services. Modern users not only assess technological sophistication but also how that technology can provide a practical and relevant experience to their needs.

Furthermore, technological innovation was also proven to increase perceived usefulness. This indicates that users not only assess technological sophistication but also how that technology can provide real benefits in their activities. A modern and efficient digital experience helps users feel that vehicle financing services are more practical and easily accessible.

This finding shows that technological innovation is one of the main factors in increasing the competitiveness of mobile banking super-apps in the era of banking digital transformation. If Bank Mandiri can continue to innovate its digital services sustainably, the impacts obtained will be increased use of digital services, increased user satisfaction, and increased competitiveness of Livin' by Mandiri in the Indonesian digital banking industry.

CONCLUSION

This research examined how the characteristics of mobile banking super-apps affect users' intentions to utilize the Livin' Auto feature within the Livin' by Mandiri application, employing an integration of the Technology Acceptance Model (TAM) and the Information Systems Success (IS Success) Model. The results reveal that factors such as interactivity, process completeness, technological service innovation, perceived ease of use (PEOU), and perceived usefulness (PU) have a significant impact on users' intentions to adopt the Livin' Auto feature, while service diversity does not significantly influence either PEOU or PU.

These findings suggest that users place greater importance on the quality of the digital service experience rather than the quantity of features available, with perceived usefulness identified as the most significant predictor of adoption. Furthermore, perceived ease of use enhances users' perceptions of usefulness, thereby indirectly reinforcing the intention to use, underscoring the necessity for digital services to be simple, integrated, and user-friendly.

This study makes a theoretical contribution by expanding the TAM through the inclusion of super-app-specific characteristics as precursors to PEOU and PU, and by integrating the IS Success Model to incorporate dimensions of system quality and service quality within the technology adoption framework. From a practical standpoint, the findings indicate that banks

should focus on technology-driven service innovation, seamless processes, and high-quality user experiences rather than solely increasing the range of services offered to promote the adoption of digital vehicle financing services. However, the study is constrained by its cross-sectional design, which limits causal inference, and its concentration on Livin' by Mandiri users, which restricts the generalizability of the results. Future research should consider longitudinal or experimental methodologies, incorporate additional variables such as trust and perceived risk, and compare various mobile banking super-apps across Indonesia and other emerging markets to enhance the understanding of digital service adoption.

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AUTHOR CONTRIBUTION STATEMENT

Author 1: Conceptualization, methodology, data collection, formal analysis, writing—original draft. Author 2: Supervision, validation, writing—review and editing, project administration. All authors have reviewed and consented to the published version of the manuscript.

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