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**The Influence of Service Quality, Brand Image, Trust, Security
and Technology on Customer Satisfaction of Movin
By Mandiri Taspen Users**

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ABSTRACT

This study aims to examine the influence of service quality, brand image, trust, security, and technology on customer satisfaction among users of the Movin by Mandiri Taspen mobile banking application, with a case study at Bank Mandiri Taspen KCP Batu. A quantitative approach was applied using a survey of 93 respondents selected through purposive sampling. The data were analyzed using Structural Equation Modeling based on Partial Least Squares (PLS-SEM) with the SmartPLS software. The findings reveal that security and technology have a positive and significant effect on customer satisfaction. In contrast, service quality, brand image, and trust do not show a statistically significant influence. These results indicate that for the retirement customer segment, system security and technological performance are more influential in shaping satisfaction compared to relational and reputational factors. This study contributes to the literature on digital banking services by emphasizing the importance of strengthening security systems and improving technological features to enhance customer satisfaction, particularly within the retirement segment.

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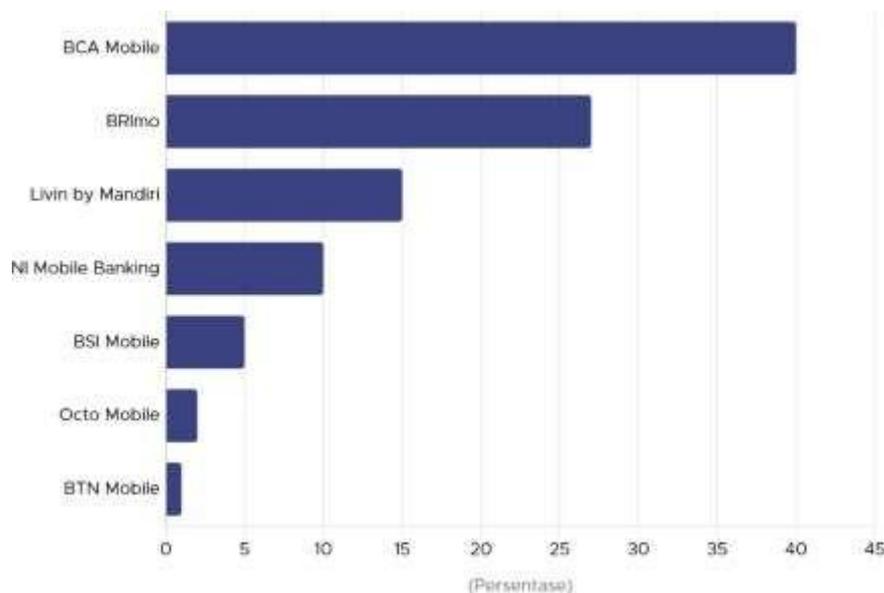
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INTRODUCTION

The era of digitalization has driven significant transformations in various aspects of people's lives, including in the banking sector. The development of increasingly modern information technology has changed people's transaction patterns from conventional systems to more efficient and flexible digital systems (Ardianto et al., 2024). This transformation has triggered increasingly competitive competition in the banking industry, so every financial institution is required to adapt by presenting technology-based innovations to meet customer needs quickly, easily, and safely (Wulandari et al., 2025).

One form of digital transformation in the banking sector is mobile banking services. Bank Indonesia (2014) Defines mobile banking as a financial transaction service that is carried out through a mobile device with the source of funds coming from the customer's account at the bank. This service allows customers to make various transactions such as transfers, payments, purchases, and balance checks anytime and anywhere without having to visit bank offices or Automated Teller Machines (ATMs). The flexibility of 24-hour access is one of the main factors in the increasing adoption of this service in the community.

The growth of digital banking transactions in Indonesia shows a very positive trend. Bank Indonesia noted that in 2023 the value of digital banking transactions reached IDR 58,478.24 trillion or grew by 13.48% (year on year). This value is projected to increase by 9.11% in 2024 to reach IDR 63,803.77 trillion. This data shows a shift in people's preferences from conventional transactions to digital transactions. In addition, surveys Populix (2024) shows that banking applications such as BCA Mobile and BRImo are the most widely used applications by Indonesians, indicating the increasing acceptance of digital banking services.



Source: Katadata (2024)

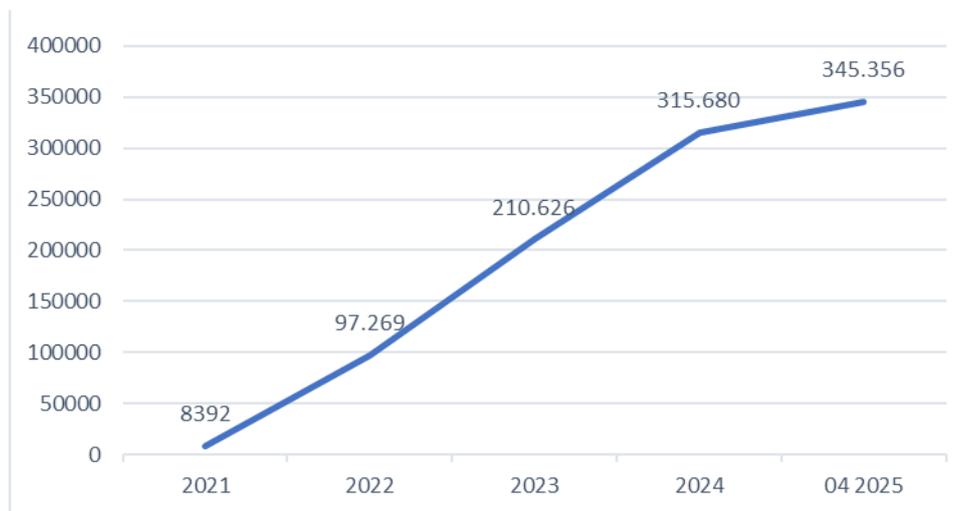
Figure 1.

The Most Popular Mobile Banking Applications in Indonesia in 2024

In line with these developments, Bank Mandiri Taspen presents the Movin by Mandiri Taspen application as a form of digital service transformation specifically aimed at the retirement segment. This application is designed to make it easier for retirees to make financial transactions without having to come to a branch office. The available features allow users to make transactions

independently through smartphones, thereby increasing time efficiency and convenience.

Internal data shows that since its launch in 2021 with a total of 8,392 users, the Movin app has experienced significant growth to reach 343,811 downloads by April 2025. Compared to the April 2024 period of 220,457 users, there was a significant increase. This shows that the application is well received by the target market. However, there is an interesting phenomenon that is the problem of research, namely the number of active users recorded at only 120,114 users or around 34.94% of the total downloads. This disparity between the number of downloads and active users shows that there is a gap in the utilization of digital services that is not optimal.



Source: Bank Mandiri Taspen Internal Data (2025)

Figure 2.

Growth of Movin by Mandiri Taspen Users in 2021–April 2025

Table 1.

Comparison of Registration Users and Active Users of Movin for the Period of March 2025

Regional Offices	User Movin		
	Registration	Active Users	Conversion
Area Office 01	34.745	11.137	32.05%
Area Office 02	33.372	11.960	35.41%
Area Office 03	40.785	17.332	42.50%
Regional Office 04	31.331	12.729	40.63%
Regional Office 05	40.870	15.417	37.72%
Region Office 06	50.442	18.575	36.82%
Area Office 07	31.410	8.783	27.96%

Regional Office 08	31.373	10.611	33.82%
Area Office 09	49.083	13.570	27.65%
Total	343.811	120.114	34.94%

Source: Bank Mandiri Taspen Internal Data (2025)

The low level of active users can be influenced by a variety of factors. Retired groups often face challenges in adapting to digital technology. Security and trust factors are the main considerations because this group is often targeted by digital crime. High risk perception can lower the level of trust in digital banking services. In addition, the complexity of technology and ever-evolving features is not necessarily fully in line with the adaptability of elderly users.

In the context of digital services, service quality is an important factor that affects customer satisfaction. Service quality refers to the extent to which the services provided are able to meet or exceed customer expectations (Khumaini et al., 2022). In mobile banking services, the quality of service includes not only the speed and reliability of the system, but also ease of use, responsiveness, security guarantees, and customer service support. The better the quality of service felt, the higher the level of customer satisfaction.

In addition to service quality, brand image also plays a role in shaping customers' positive perceptions of a banking institution. Brand image is a consumer's perception of the quality and reputation of a company which is reflected through the identity, name, and services provided (Mappadeceng & Fhaikhoh, 2022). A strong brand image can increase customer confidence in using the products or services offered.

Trust is a fundamental element in digital-based transactions. Rachmad et al. (2022) Stating that trust is a willingness to rely on the other party in a business relationship. In the context of mobile banking, trust is related to the belief that the system is able to keep customer data and funds safe. Bachmann & Zaheer (2006) adding that trust is very important especially when interactions are carried out in conditions of uncertainty.

The security aspect is also an inseparable factor in digital services. Information security includes the protection of data from the risk of loss, alteration, or misuse (Akbar & Nasution, 2024). For the retired group, the perception of system security greatly determines the decision to actively use mobile banking services.

Furthermore, technological factors also affect the level of comfort and ease of use of the application. Rachmadi & Kom (2020) defines technology as a set of tools that aid in the processing of information. Ease of navigation, simple

interface design, and system stability are important aspects that determine the user experience, especially for older age groups.

Previous research shows that service quality has a positive effect on customer satisfaction (Nurdin et al., 2020; Pambudi & Soliha, 2022). Nawangasari & Putri (2020) It was also found that service quality and trust had a significant effect on customer satisfaction. However, previous research has not comprehensively integrated brand image and technology variables in the context of mobile banking aimed at the retirement segment. Therefore, this study aims to analyze the influence of service quality, brand image, trust, security, and technology on the satisfaction of Movin by Mandiri Taspen users. Based on this description, the research hypothesis is formulated as follows:

H1: The quality of service has a positive effect on customer satisfaction.

H2: Brand image has a positive effect on customer satisfaction.

H3: Trust has a positive effect on customer satisfaction.

H4: Security has a positive effect on customer satisfaction.

H5: Technology has a positive effect on customer satisfaction..

RESEARCH METHOD

This study uses a quantitative approach with the Structural Equation Modeling–Partial Least Squares (SEM-PLS) method which is processed using the SmartPLS application. The SEM-PLS method was chosen because it is able to analyze the relationship between latent variables simultaneously and is suitable for relatively small sample sizes and predictive research models (Sari et al., 2022; Sugiyono, 2013).

The population in this study is all Bank Mandiri Taspen customers who use the Movin by Mandiri Taspen application. A sample is a part of the population that is selected to represent the characteristics of the population as a whole (Hutami, 2024). The sampling technique uses the purposive sampling method, which is a non-probability technique that assigns respondents based on certain criteria according to the research objectives. The criteria set include respondents who are customers of Bank Mandiri Taspen, use the Movin by Mandiri Taspen application, and are domiciled in the cities of Malang and Batu.

The number of samples in this study was 93 respondents. The determination of the number of samples refers to the provisions put forward by the Hair et al. (2019), which states that the sample size in the SEM-PLS analysis can be determined based on the number of indicators and the complexity of the research model. Based on this calculation, the number of respondents who met the criteria for this study was 93 people.

The data collection method was carried out through the distribution of questionnaires to respondents. The questionnaire was used as a research instrument to measure respondents' perception of the variables studied, namely service quality, brand image, trust, security, technology, and customer satisfaction. The respondents' answers were measured using a six-point Likert scale, which is presented in Table 2.

Table 2.
Likert Measurement Scale

Code	Remarks	Score
STS	Strongly Disagree	1
TS	Disagree	2
KS	Disagree	3
US	Somewhat Agree	4
S	Agree	5
SS	Strongly agree	6

Data analysis is carried out with two main stages in SEM-PLS, namely measurement model testing (outer model) and structural model testing (inner model). The outer model test aims to test the validity and reliability of the construct through the value of the loading factor, Average Variance Extracted (AVE), Composite Reliability, and Cronbach's Alpha. Furthermore, internal model testing was carried out to test the relationship between latent variables and test the research hypothesis through path coefficients, t-statistical values, and p-values. This research methodology was used to analyze the influence of service quality, brand image, trust, security, and technology on customer satisfaction of Movin by Mandiri Taspen users.

RESULT AND DISCUSSION

Validity Test

Table 3.
Convergent Validity Test Results

Variable	Outer Loading Value	Results
Quality of Service	0.801	Valid
Brand Image	0.790	Valid
Trust	0.875	Valid
Security	0.847	Valid
Technology	0.834	Valid
Consumer Satisfaction	0.859	Valid

Source: Taken from Validity Test data

Based on the outer loading value above, it can be seen that some items or indicators have an outer loading value > 0.7 , which means that it is valid. An Outer Loading value limit of > 0.5 is acceptable provided that the validity and reliability of the construct are qualified.

Multicollinearity Inner Model

SmartPLS v.3.2.7 2018 uses the Variance Inflation Factor (VIF) to evaluate collinearity. Multicollinearity is quite often found in statistics. Multicollinearity is a phenomenon in which two or more independent variables or exogenous constructs are highly correlated and thus cause poor model predictability (Sekaran & Bougie, 2016). The VIF value must be less than 5, because if it is more than 5, it indicates the existence of collinearity between constructs (Sholihin & Ratmono, 2021). Multicollinearity or the presence of strong intercorrelations between free variables is shown in the VIF Inner model values below:

Table 4.
Multicollinearity Test Results

Variable	VIF Value	Results
Quality of Service	1.084	Valid
Brand Image	2.445	Valid
Trust	2.720	Valid
Security	2.594	Valid
Technology	2.825	Valid
Consumer Satisfaction	1.000	Valid

Source: Taken from Outer Stage data

Based on the VIF value in the table above, there is no VIF value > 10 , so there is no multicollinearity problem. This fact is supported by the absence of a strong correlation between independent variables.

Path Coefficient or Path Analysis Coefficient

Below shows the direct effect of each exogenous variable construct on the endogenous variable:

Table 5.
Hypothesis Test Results (Path Coefficients)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Remarks
Brand Image (X2) -> Consumer Satisfaction (Y)	-0.045	0.060	0.186	0.244	0.807	Not Influential
Security (X4) -> Consumer	0.291	0.265	0.124	2.343	0.020	Positive Effect

Satisfaction (Y)						
Trust (X3) -> Consumer Satisfaction (Y)	0.246	0.165	0.202	1.218	0.224	Not Influential
Service Quality (X1) -> Customer Satisfaction (Y)	0.124	0.092	0.076	1.632	0.103	Not Influential
Technology (X5) - > Consumer Satisfaction (Y)	0.382	0.414	0.128	2.984	0.003	Positive Effect

Source: Taken from Bootstrapping Model data

DISCUSSION

The results of the analysis using SEM-PLS show that not all independent variables have a significant effect on customer satisfaction of Movin by Mandiri Taspen KCP Batu users. The discussion of each hypothesis is explained as follows.

The Influence of Service Quality on Customer Satisfaction

The test results showed that the quality of the service had a p-value of 0.103 (> 0.05), so the first hypothesis was rejected. This shows that the quality of service does not have a significant effect on customer satisfaction of Bank Mandiri Taspen KCP Batu. Although the coefficient points in a positive direction, the influence is not statistically significant.

This finding is not in line with the research of Khumaini, Fahrudin, and Samsuri (2022) which states that mobile banking services have a positive effect on customer satisfaction. Research Triyanti et al. (2021) also stated that the better the quality of mobile banking services, the more customer satisfaction will increase.

The difference in the results of this study can be explained based on the characteristics of the respondents, namely retirement. Based on the results of interviews with three customers, it is known that the services obtained when making transactions at bank offices are not directly related to the use of mobile banking. In addition, interactions related to mobile banking generally only occur when obstacles or problems occur, so the perception of service quality does not directly affect the level of satisfaction with the Movin application.

The Influence of Brand Image on Customer Satisfaction

The test results showed that the brand image had a p-value of 0.807 (> 0.05) with a parameter coefficient of -0.045. This shows that brand image has no significant effect on customer satisfaction and even has a negative relationship

direction, although it is not statistically significant. Thus, the second hypothesis is rejected.

These findings are contrary to research Prasetyo et al. (2023) which states that brand image has a positive and significant effect on customer satisfaction. Lumbanraja & Mardhiyah (2025) It was also found that brand image is able to have a positive influence on customer satisfaction.

The insignificance of the brand image variable in this study can be caused by the characteristics of retired customers who are more oriented towards functional and security aspects than the perception of reputation or company image. For this segment, ease of use and transaction security are more of a consideration than brand perception.

The Influence of Trust on Customer Satisfaction

The test results showed that the trust had a p-value of 0.224 (> 0.05), so the third hypothesis was rejected. This means that trust has no significant effect on customer satisfaction. This result is not in line with Nawangsari's (2019) research which states that trust has a significant effect on customer satisfaction. Research Full Circle (2024) It also concluded that the higher the level of customer trust, the higher the level of satisfaction felt.

This difference in results can indicate that for Mandiri Taspen KCP Batu customers, trust in the bank as an institution has been formed previously through long-term relationships. Thus, trust is no longer a distinguishing factor that affects satisfaction with the use of the Movin application, but has become a basic assumption (baseline trust).

The Effect of Security on Customer Satisfaction

In contrast to the previous variable, security showed a significant influence on customer satisfaction with a p-value of 0.020 (< 0.05). Thus, the fourth hypothesis is accepted. This means that the higher the perceived security, the higher the customer satisfaction.

These findings are in line with research Deliyana et al. (2021) and Riska (2024) which states that security has a positive and significant effect on customer satisfaction. For the retirement segment that is vulnerable to digital fraud, security is the main factor in determining satisfaction with digital banking services. Guaranteed data protection and transaction security provide a sense of security that directly increases user satisfaction.

The Influence of Technology on Customer Satisfaction

The test results showed that the technology had a p-value of 0.003 (< 0.05), so the fifth hypothesis was accepted. Technology has a positive and significant effect on customer satisfaction of Bank Mandiri Taspen KCP Batu. These findings are in line with research Johan et al. (2024) and Setiawan et al. (2024)

which states that the development of digital technology has a significant effect on customer satisfaction. In the context of Movin's services, ease of navigation, system stability, and features relevant to retirement needs are important factors that increase satisfaction.

Overall, the results of this study show that in the context of retired users, security and technology factors are the main determinants of customer satisfaction. Meanwhile, service quality, brand image, and trust did not show a statistically significant influence. These findings indicate that in mobile banking services for the retiree segment, functional and protective aspects are more dominant than perception and reputational aspects.

CONCLUSION

This study aims to analyze the influence of service quality, brand image, trust, security, and technology on customer satisfaction of Movin by Mandiri Taspen users at Bank Mandiri Taspen KCP Batu using the SEM-PLS method through the SmartPLS application. The results of the study show that service quality, brand image, and trust do not have a significant effect on customer satisfaction. On the other hand, security and technology variables have been proven to have a positive and significant effect on customer satisfaction.

These findings indicate that in the context of retired customers, system security aspects and technological ease are the main factors that determine the level of satisfaction in using mobile banking. Therefore, Bank Mandiri Taspen is advised to continue to strengthen customer data security and protection systems as well as improve the stability and development of application technology, especially at times with high transaction intensity. Additionally, companies may consider engagement enhancement strategies, such as loyalty programs for active users, to encourage continued use.

For further research, it is recommended to conduct studies in different regions or banking institutions and add other variables that have the potential to affect customer satisfaction in order to obtain a more comprehensive research model and have a wider generalization power.

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