

**SERVICE QUALITY IMPROVEMENT STRATEGIES IN THE USE AND SECURITY OF
MOBILE BANKING FROM THE PERSPECTIVE OF MASLAHAH MURSALAH AMONG
BANK MANDIRI CUSTOMERS IN THE JEMBER AREA**

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Abstract

This study aims to explore strategies for improving service quality in the use and security of mobile banking from the perspective of Maslahah Mursalah among Bank Mandiri customers in the Jember area. The concept of Maslahah Mursalah, which emphasizes public interest and welfare, serves as a theoretical foundation to evaluate how service quality enhancement can align with customers' needs and security concerns. Using a qualitative approach, data were collected through in-depth interviews and surveys involving Bank Mandiri customers actively using mobile banking services. The findings reveal that customers prioritize ease of use, transaction security, and responsive customer support as critical factors for service quality improvement. Furthermore, the study identifies several strategic measures, such as implementing advanced encryption technology, enhancing user education on mobile security, and optimizing application interfaces to increase trust and satisfaction. This research contributes to both academic knowledge and practical applications by integrating Islamic ethical principles with contemporary banking service quality management. The results recommend that banks consider the Maslahah Mursalah framework to foster better customer relations, reduce security risks, and promote sustainable mobile banking usage. This approach not only strengthens financial inclusion but also ensures that technological advancements respect the welfare and security of all stakeholders..

Keywords: Service Quality, Mobile Banking Security, Maslahah Mursalah, Customer Satisfaction

INTRODUCTION

The rapid development of information and communication technology (ICT) has significantly influenced the evolution of the global economy. Developing countries in the Asia-Pacific region, including Indonesia, have demonstrated that the diffusion of information technology is positively correlated with per capita income—one of the key indicators of a country's welfare (Studies & Imaniyah, 2024). The continuous advancement of ICT has brought transformative changes in human life, including in the

fields of culture, economy, defense, security, and education. As such, all stakeholders are compelled to adapt and keep pace with these developments (Putra et al., 2017).

At present, numerous economic activities utilize sophisticated information technology to facilitate the public, such as online buying and selling transactions, mobile transfers, and payment of purchases and bills via credit or debit cards issued by banks (Ilham et al., 2024). Technological advancement has shifted public demand towards a payment instrument that ensures speed, accuracy, and security in every electronic transaction (Mandiri & Sherlyanti, 2024).

Technological progress in today's modern era plays a crucial role in transforming payment systems. Previously, the Indonesian public primarily relied on cash for purchases, but now they have begun to adopt and utilize non-cash payment methods for a variety of transactions (Bah et al., 2021). Electronic payment, as a form of value-based payment, stores money in specific electronic media. The efficiency of a payment system can be measured by its ability to minimize costs while maximizing the benefits derived from a transaction. Transactions are central to the economic cycle, as they involve payment instruments—tools that function as transactional media for both producers and consumers (Susanto & Zulkamal, 2022).

The East Java Regional Office of Bank Indonesia, in collaboration with relevant institutions, continues to undertake various preventive and repressive measures to reduce the circulation of counterfeit currency (Apaua & Lallie, 2022). As of the second quarter of 2024, preventive efforts have been focused on public education and dissemination of information regarding the distinguishing features of genuine rupiah banknotes, both directly and through advertisements and publications in mass or social media. These preventive strategies are reinforced through increased cooperation with related agencies across East Java. Meanwhile, repressive actions involve coordination with the police to apprehend and prosecute counterfeiters and distributors. This cooperation has been formalized through a Memorandum of Understanding outlining the procedures for handling suspected criminal acts related to payment systems, foreign exchange business activities, violations of the rupiah usage obligation in the territory of the Republic of Indonesia, and criminal acts involving rupiah banknotes (Mamun & Ningsih, 2021).

Non-cash payments, particularly electronic money, are widely recognized today. Electronic money refers to a digital payment instrument where its value is stored within a specific electronic medium. Various forms of electronic payment include digital cash or e-cash, e-wallets, and smart cards. Each type of payment features unique transaction mechanisms due to their distinct characteristics, functions, benefits, and advantages (Zulkifly et al., 2022).

Digital banking in Indonesia and elsewhere is heavily influenced by the increasing integration of technological devices into daily human life. These devices include mobile phones and computers. A majority of the Indonesian population

remains unfamiliar with the terminology and practice of digital banking. Public understanding varies widely—from highly knowledgeable users to those with limited or no knowledge, and even those who are indifferent (Fandi, 2019).

This situation is attributable to several factors, such as educational level and field, work environment, age, access to information, physical constraints, and others. Yet, today, bank customers and public service users often face situations that no longer provide cash payment alternatives, thus necessitating the use of digital banking services. Examples include parking payments, toll fees, or bills for paid television services, which now accept only electronic payments. Moreover, e-commerce product payments—now an integral part of daily consumer activity—rely heavily on electronic transactions. This includes purchases of fashion items, accessories, flight and train tickets, hotel bookings, cinema tickets, and more. Electricity and phone bill payments are also more efficiently managed via electronic money or bank transfers compared to conventional methods that require visiting service offices and queuing at counters. Culinary outlets and cinemas increasingly accept electronic payments, although many still offer cash or debit/credit card payment options.

The public has indeed benefited from the availability of digital banking products and services. However, these benefits can be optimized only if users possess sufficient knowledge about the digital tools they are using or intend to use. Digital banking users encompass individuals managing banks as financial intermediaries, customers, and the general public. Adequate user knowledge is essential not only to fully utilize digital banking features but also to understand potential financial risks, such as data misuse, transaction delays due to offline issues, or significant financial losses resulting from IT system weaknesses or the misconduct of certain parties. Incidents of misuse or technical disruption related to banking technology are regularly reported in both local and national media, whether print or electronic.

The greatest challenge faced by the banking industry is digital transformation, which is complex and demands innovation from banks. Digital banking entails the digitization and digitalization of banking services, transitioning from traditional branch-based operations to online platforms accessible anytime and anywhere. Online banking, previously limited to cash deposits/withdrawals, fund transfers, and bill payments, has evolved into a more comprehensive digital banking mechanism. Customers can now carry out a wide range of financial transactions more easily, affordably, and quickly, with enhanced security—including interbank and inter-institutional transactions (Widayat, 2022).

Digital banking offers numerous advantages to both customers and banks, including convenience, innovation, accessibility, user-friendliness, time and cost efficiency, reduced transaction costs, improved customer relationships, increased customer loyalty, expanded market reach, decreased dependence on traditional

banking services, and more responsive and accurate adaptation to evolving customer needs and expectations.

Electronic payments are now widely used for public transportation and retail purchases in minimarkets and restaurants. Currently, mobile-based electronic payments popular among the public include Livin by Mandiri, OVO (by Lippo Group), LinkAja (by Telkomsel), TapCash (by BNI), Flazz (by BCA), and ShopeePay (by Shopee), among others.

The development of e-money, particularly Livin, has not yet reached its full potential due to the public's entrenched habit of using cash and the uneven dissemination of information regarding mobile banking-supported applications in Jember Regency. Jember was selected as the research site due to the relatively high number of Livin users in the area .

Field observations show that people still prefer to use physical currency such as banknotes and coins. The transformation into electronic money enables simpler and more efficient financial transactions resulting from technological progress. Many companies in the IT and financial sectors offer user-friendly non-cash transaction solutions through electronic money via mobile banking services launched by financial institutions.

Bank Mandiri has once again been listed among the World's Best Banks 2023, as published by international financial media outlet Forbes. According to Forbes, Bank Mandiri (stock code BMRI) was recognized as the best state-owned bank in Indonesia. This ranking is based on a survey conducted by Forbes and Statista involving over 48,000 customers from 32 countries. The assessment emphasized customer trust, service quality, terms and fees, digital services, and financial advice. Furthermore, the bank, symbolized by the golden ribbon, was among the top-performing commercial banks in Indonesia listed in the 2023 Forbes Global 2000. Bank Mandiri ranked 418th, up 71 positions from 489th the previous year.

Bank Mandiri continues to establish itself at the forefront of technological and informational advancements. The bank is committed to progress through continuous transformation, innovation, data security, and superior human resources—contributing meaningfully to a better life. Digitalization has become imperative, especially as Bank Mandiri must integrate the systems of four merged banks and conduct internal transformation to develop a robust (agile), reliable, and customizable digital banking system.

Over the past five years, the digitalization of financial products and services has become essential for the banking industry to remain competitive. This trend aligns with the needs of the millennial market—digital natives—while enhancing the overall efficiency and effectiveness of the banking ecosystem.

Bank Mandiri's digital banking framework is built upon three pillars. The first pillar is the internal digitization of processes to prepare the organization for the digital

era. The second is the modernization of e-channels, such as ATMs, internet banking, mobile banking, and call centers, to align with contemporary digital standards. The third pillar is leveraging the digital ecosystem by collaborating with marketplaces and e-commerce platforms.

These three pillars operate within a framework of robust risk management and IT security, with a core focus on fostering a digital mindset—an essential long-term challenge for Bank Mandiri. This involves transforming long-standing processes and banking culture into a digital-centric mindset and culture. Through e-channels such as Mandiri e-banking, customers can conduct transactions anytime and anywhere. Furthermore, via Mandiri Online or Mandiri Mobile Banking, customers are provided with financial and non-financial banking services through an app accessible via smartphones.

From a banking perspective, digitalization is a commercially advantageous strategy. Establishing a digital banking ecosystem accessible from anywhere enhances business efficiency. To develop a resilient, reliable, and customizable system, Bank Mandiri has also taken steps to reduce reliance on external vendors by developing its systems using internal human resources.

Naturally, the digital transformation must be complemented by a strong communication strategy to educate existing customers and attract potential ones. This is crucial in the highly competitive market targeting urban middle-class millennials—technologically literate consumers who demand efficient and effective digital services.

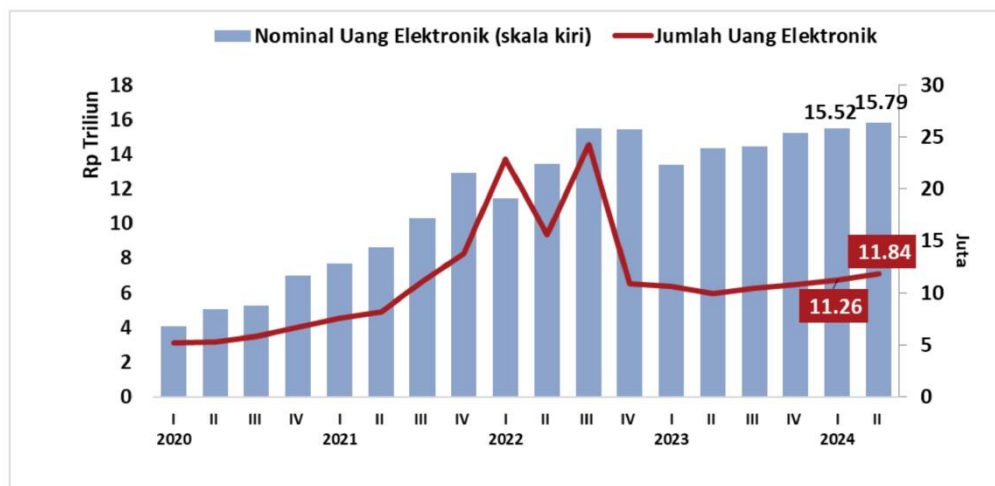
Electronic payments are a major factor in millennials' preference for online over offline shopping, utilizing smartphones for transactions. The convenience of electronic payments is particularly beneficial in areas with rising online transaction volumes. Millennials, in pursuit of efficiency, increasingly adopt smartphone-based electronic transaction applications to meet their daily needs.

The recent shift of society from using cash to engaging in digital transactions has become an interesting subject of study, particularly in order to determine the extent to which the development of digital banking has influenced consumer behavior in utilizing e-money services. One such service is the use of **Livin' by Mandiri** as a means of payment in buying and selling transactions in Jember. E-money services have indeed become increasingly popular in line with the significant rise in smartphone usage over the past five years in Indonesia. Moreover, the growing number of cardless electronic money applications available for conducting transactions further contributes to this trend.

Electronic money (e-money) transactions in the second quarter (Q2) of 2024 continued to increase, albeit at a slower pace both on a quarterly and annual basis. The transaction value of e-money in Q2 2024 reached IDR 15.79 trillion, reflecting a growth of 1.73% quarter-to-quarter (qtq) and 9.96% year-on-year (yoy), compared to

the previous quarter and the same quarter in the previous year, which recorded IDR 15.52 trillion (Q1 2024) and IDR 14.36 trillion (Q2 2023), respectively. This figure indicates a deceleration in growth compared to Q1 2024, which experienced a 2.01% qtq and 15.88% yoy increase, in line with the normalization of economic activity following heightened transaction volumes during the preparations for national holidays and general elections in Q1 2024, and the early period of Q2 2024, which coincided with the Idul Fitri holiday. The total number of e-money instruments recorded in Q2 2024 was 11.84 million, showing a qtq growth of 5.14% and a yoy growth of 19.21% compared to the same period in the previous year. This increase in the number of e-money instruments during the reporting quarter suggests a growing interest in e-money transactions, supported by the ease of use—especially those integrated with smartphones—which facilitates user-friendly transactions and enhances interoperability.

The use of electronic money in Jember Regency is reportedly quite high and was even the second highest in East Java after Surabaya in 2019. This information was conveyed by the Head of the Economic Development Team at Bank Indonesia Jember. According to available data, more than 10 percent of the Jember population has shifted to using non-cash transactions, predominantly among the millennial demographic. This group is considered highly adaptive to technological advancements. Data from Bank Indonesia (BI) for the first quarter of 2019 shows that approximately 258,000 residents of Jember were using electronic money, ranking second after Surabaya, which had 292,000 users.



With these figures, the use of e-money or non-cash transactions in Jember Regency was the second highest in East Java, following Surabaya. Bank Indonesia continues to promote the use of e-money over cash transactions. In addition to being safer, non-cash transactions also help reduce the high costs associated with producing conventional money. This study was conducted in Jember Regency, based on the assumption and consideration that Jember has medium-level potential in the

development of non-cash payment instruments (e-money), as it ranks as the second-largest user of e-money in East Java.

Based on this phenomenon and a review of previous studies, the author is interested in conducting research on Mandiri's mobile banking, presented in the form of a research proposal titled: **“Strategies to Improve Service Quality in the Use and Security of Mobile Banking from the Perspective of Maslahah Mursalah among Bank Mandiri Customers in the Jember Area.”**

RESEARCH METHOD

This study employs a descriptive qualitative approach through field research conducted at Bank Mandiri in the Jember area. The primary focus is on strategies to improve service quality in the use and security of mobile banking from the perspective of *maslahah mursalah*. The research site was selected based on the high level of cashless transactions in Jember Regency, ranking second in East Java after Surabaya. Data collection techniques include observation, semi-structured interviews, and documentation, with research subjects consisting of branch heads, employees, and customers of Bank Mandiri selected purposively. Data analysis follows the qualitative model by Miles and Huberman, and data validity is ensured through triangulation of sources, methods, and data.

RESULT AND DISCUSSION

Service Quality Improvement Strategies in Mobile Banking Usage: A Maslahah Mursalah Perspective at Bank Mandiri, Jember Area

Improving service quality in mobile banking is essential for enhancing customer satisfaction and loyalty. In Islamic and conventional banking, the core values of professionalism, trust, and responsiveness remain consistent. From a Maslahah Mursalah perspective, service strategies should not only be efficient but also ethically aligned with the principles of public benefit (*maslahah*).

1. User Interface and Notification Features

A modern and user-friendly interface with real-time notifications represents the "tangible" dimension of service quality. These features enhance user security by offering instant updates on transactions, thereby increasing trust. In Islamic context, physical aspects of service must prioritize utility and customer comfort over luxury. Studies, including Arifin's research on Islamic compliance and e-banking service quality, affirm the significant impact of these dimensions on customer trust and loyalty.

2. Financial Report Features

Structured financial reports provide clarity and accessibility, allowing users to track spending and income easily. This supports users in financial planning and reflects transparency, which is essential for building trust. Automatically generated reports

through mobile banking reduce manual input and enhance efficiency—fulfilling both customer needs and Islamic ethical values regarding trust (amanah) and clarity.

3. Transparent Transaction Records and Data Protection

Reliability in recording and protecting transaction data is a critical service quality factor. Transparent communication regarding how customer data is used, and robust data security measures, ensure users feel safe. Accurate records and secure systems contribute to sustained customer trust and reduce potential risks. This aligns with Islamic principles of amanah and maslahah, emphasizing ethical responsibility in handling information.

4. Responsiveness to Customer Issues

Responsiveness involves the speed and professionalism in addressing customer complaints. Fast resolutions to errors like duplicate transactions demonstrate concern and reliability. According to Islamic ethics, such responsiveness reflects the values of istijabah (responsiveness) and raf' al-haraj (removal of hardship), encouraging customer loyalty through compassionate and prompt service.

5. Understanding Customer Needs

Empathy in service involves tailoring features to meet user-specific needs, such as payment reminders and visual design that enhances usability. These features not only simplify financial management for small businesses but also illustrate a deep understanding of users. Utilizing local language and intuitive icons demonstrates taysir (facilitation) and strengthens customer engagement. In line with maslahah, these strategies aim to promote well-being and financial empowerment for all users.

The integration of Islamic ethical principles with modern digital banking features—such as intuitive design, reliable data protection, financial transparency, rapid responsiveness, and customer-centric services—strengthens the quality of service in mobile banking. From the Maslahah Mursalah perspective, these strategies not only fulfill customer needs but also uphold values of trust, efficiency, and public benefit, making them essential for sustainable growth at Bank Mandiri in the Jember area.

Service Quality Improvement Strategies for Mobile Banking Security: A Maslahah Mursalah Perspective at Bank Mandiri, Jember

This study explores strategies to enhance service quality in mobile banking security at Bank Mandiri Jember, through the lens of maslahah mursalah, an Islamic legal principle prioritizing public interest. Service quality is not merely about fulfilling functional tasks but about creating emotional and cognitive bonds—heart share and mind share—that foster customer loyalty. While Islamic and conventional services share core operational features, Islamic service mandates professionalism and ethical responsibility, emphasizing humility and avoiding extravagance in physical presentation.

From the perspective of *maslahah mursalah*, which seeks unarticulated yet beneficial actions aligning with sharia objectives, mobile banking security is essential. It safeguards customers' property and privacy, which correlates with the *maqasid al-shariah* (objectives of Islamic law), such as protecting wealth (*hifz al-mal*).

1. Account Security Features

Account security involves tangible service quality elements such as real-time notifications, activity logs, and transaction reports. These tools not only assure users of safety but also enhance their trust and satisfaction. Biometric technologies like fingerprint and facial recognition are employed to authenticate users, while OTP (One-Time Password) systems ensure secure transaction processes. These features reflect the bank's commitment to sharia-aligned professionalism and public welfare.

2. Threat Detection System

Threat detection reflects the reliability dimension of service quality—consistent, accurate service delivery. AI-based threat monitoring, anomaly detection in transaction behavior, and automatic security responses (e.g., account locking, customer alerts) exemplify proactive measures. These tools mitigate financial crime risks while upholding Islamic ethics of trust and protection. The inclusion of refund policies after investigative processes further indicates alignment with *maslahah mursalah* by prioritizing customer welfare.

3. Responsiveness to Security Threats

Responsiveness pertains to timely and effective customer support during security breaches. Bank Mandiri delivers rapid alerts for suspicious activity and provides immediate guidance on remedial steps (e.g., account locking, password change). This proactive and educational approach not only mitigates risks but also embodies Islamic values of care and justice in service, reducing customer anxiety and increasing confidence.

4. Transparency and Assurance

Assurance in service means clearly communicating security policies and systems. Bank Mandiri employs advanced encryption, 2FA, and biometric verification while striving for transparency in data processing and risk handling. Explaining such protective strategies enhances customer understanding and engagement, reinforcing their trust. Transparency and assurance fulfill Islamic ethical imperatives by building informed, secure customer relationships.

5. Empathy Toward Customer Needs

Empathy involves addressing individual security concerns through personalized features like customizable transaction limits and account control tools. Bank Mandiri demonstrates empathy through its responsive features and educational initiatives, helping users understand digital risks and maintain secure banking habits. This approach nurtures stronger, trust-based relationships and encourages customer loyalty, consistent with Islamic marketing principles.

Bank Mandiri's strategies for improving mobile banking security—ranging from biometric authentication and threat detection to empathetic customer support—demonstrate an integration of modern service quality principles with the Islamic legal concept of *maslahah mursalah*. These strategies not only enhance customer experience and trust but also promote ethical and equitable service delivery, aligning with sharia values and contributing to the broader goal of socioeconomic well-being in the Jember area.

Supporting and Inhibiting Factors of Mobile Banking Use: A *Maslahah Mursalah* Perspective at Bank Mandiri Jember

In the digital era, mobile banking has emerged as a vital tool for convenient financial transactions. At Bank Mandiri Jember, several factors support its adoption, primarily ease of use, transactional efficiency, and economic benefit. Users appreciate features such as instant transfers, bill payments, and balance checks, which contribute to financial inclusion. These align with Islamic marketing principles like *taysir* (facilitation), *amanah* (trust), and the overarching goal of *maslahah* (public benefit).

The security system has been continuously enhanced, featuring multi-layer authentication, biometrics, OTP verification, and proactive fraud detection using AI. This fosters user confidence, especially among those concerned with data protection. Bank Mandiri's initiatives to educate users about digital risks and safety practices further reinforce trust.

Another crucial driver is the availability of comprehensive features. From digital account opening to real-time notifications, the mobile banking app serves diverse user needs. This reflects a commitment to service quality and empathy by accommodating users' financial routines and preferences.

Educational outreach and promotional strategies have also proven effective. Video tutorials, infographics, and incentive-based promotions increase both user literacy and engagement. These initiatives align with Islamic ethical marketing values, emphasizing empathy (*rahmah*) and customer-centric service.

However, several barriers persist. Limited network infrastructure, especially in rural areas, leads to inconsistent app accessibility, undermining user trust. Technical issues, incompatible devices, and costly internet access exacerbate the problem, contradicting the Islamic value of *taysir*.

Security concerns are another major inhibitor. Despite robust protection mechanisms, users—especially the elderly and less tech-savvy—fear data breaches and phishing scams. These anxieties reflect a gap in digital confidence and point to the need for personalized support.

There is also a digital divide based on demographic and economic factors. Younger, urban, and high-income users adapt easily, while older, rural, or lower-

income customers often struggle with access and usage. Language limitations and service differentiation by account type further reinforce these disparities.

Furthermore, many users remain reliant on conventional banking methods. Preference for physical branches, paper receipts, and face-to-face service stems from habit, perceived security, and technological hesitancy. This transitional phase suggests the need for a hybrid approach, integrating digital innovations without alienating traditional users.

In conclusion, while mobile banking at Bank Mandiri Jember offers significant benefits in alignment with *Maslahah Mursalah*, challenges related to infrastructure, user confidence, digital inequality, and habitual reliance on traditional methods must be addressed. Strategic improvements in education, accessibility, and empathetic service design are essential to ensure equitable and secure mobile banking adoption for all user segments.

CONCLUSION

Based on the research focus, data analysis, findings, and discussion, it can be concluded that the strategy to improve service quality in mobile banking usage from the perspective of *Maslahah Mursalah* at Bank Mandiri in the Jember area is crucial and must be properly implemented. The study reveals that modern and user-friendly interfaces, financial report features, data protection, transparency, quick problem responses, and a deep understanding of customer needs not only enhance mobile banking usage but also align with service quality improvement strategies. Furthermore, service quality strategies in mobile banking security—such as account protection features, threat detection systems, fast response to risks, and customer-centric security measures—are essential in ensuring trust and increased usage. Supporting factors include ease and efficiency of transactions, continuous improvement in security systems, feature availability, education, and promotions, while inhibiting factors involve limited network infrastructure, security concerns, user access inequality, and dependence on conventional transactions. Additionally, suggestions from a related study on *Nubuwwah* values in local economic development among housewives in Mayang Sub-district emphasize the need for Koperasi Penganyam Sempurna Perjuangan to enhance product quality through advanced training and global standards, uphold financial integrity through transparent and responsible management, and diversify products and markets to boost competitiveness. Implementing these suggestions aims to foster local wisdom-based economic growth that is both economically productive and spiritually grounded.

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