Article

Enhancing digital banking service quality and customer experience in Azerbaijan

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Abstract

The rapid digitalization of banking has transformed mobile and internet-based channels from supplementary service instruments into core platforms for customer interaction. In Azerbaijan, this transformation has increased the importance of service quality as customers increasingly expect banking applications to provide fast, accessible, reliable, transparent, and secure services regardless of time and location. This study aims to identify the main directions for improving the quality of digital banking services in Azerbaijan and to develop an integrated framework that can guide banks in enhancing customer experience. The research applies a structured qualitative literature synthesis based on seven peer-reviewed studies published between 2022 and 2025, including research focused specifically on Azerbaijan as well as comparative international evidence. The selected studies were examined according to recurring dimensions of digital banking service quality, including usability, system performance, reliability, security and trust, information transparency, customer support, and technology readiness. The findings indicate that digital banking quality should not be treated exclusively as an information technology issue. Instead, it requires the coordinated management of technical performance, interface design, customer communication, cybersecurity, transparency, and digital inclusion. Based on the synthesis, a six-pillar improvement framework is proposed for Azerbaijan's banking sector: user-centred simplicity, speed and system performance, reliability and continuity, security and trust, transparency and customer support, and inclusive digital adaptation. The study concludes that continuous measurement of these dimensions can strengthen customer satisfaction, loyalty, financial inclusion, and readiness for emerging services such as open banking.

Keywords: digital banking, service quality, mobile banking, customer satisfaction, digital transformation, financial inclusion, Azerbaijan

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1. Introduction

The importance of using micro-unmanned aerial vehicles (micro-UAVs) for environmental monitoring, precision agriculture, disaster response, infrastructure inspection, border observation, and search-and-rescue operations has been growing. Their small size, mobility and ability to function in areas difficult or dangerous to humans, make them useful tools in modern engineering and applied science. But, despite these merits, there are a number of limitations associated with micro-UAV systems. They still have challenges with extensive and sustainable use due to limited battery capacity, route inefficiency, environmental uncertainty, communication constraints, and the need for real-time decision making.

Digital transformation has significantly changed the way banking services are delivered. Mobile applications, internet banking, digital identification, instant payments, and remote customer services have become important components of modern banking. Consequently, customers increasingly evaluate banks according to the speed, convenience, security, and reliability of their digital channels.

This development is particularly relevant to Azerbaijan, where digital financial services and cashless payments have expanded in recent years. Abbasov (2024) argues that the development of digital banking in Azerbaijan is also associated with the future adoption of open banking and highlights ease of use, reliability, security, and trust as important factors in this process. Abbasova (2024) similarly emphasizes accessibility, transparency, innovation, and customer orientation in the development of banking products and services.

Digitalization alone, however, does not guarantee high service quality. Customers may still face complicated navigation, transaction failures, unclear fees, slow processing, or difficulties obtaining support. International research confirms that system quality, information quality, and interface design significantly affect customer satisfaction with mobile banking (Al-Zu'bi & Al-Gasawneh, 2022). Reliability, responsiveness, and security are also important determinants of online banking satisfaction (Gazi et al., 2024).

Digital quality can additionally influence customers' choice of bank. Akhundov (2024) identifies service speed, quality, innovation, and service variety among the factors affecting bank selection in Azerbaijan. At the same time, differences in users' technological readiness influence satisfaction and loyalty in mobile banking environments (Ho et al., 2025).

Digital banking quality should therefore be considered not only an information technology issue but also a broader customer-experience and management challenge. Hajiyeva et al. (2025) connect banking digitalization in Azerbaijan with technological development, competition, marketing, and changing customer expectations. The aim of this study is to identify the principal dimensions of digital banking service quality and propose practical directions for improving digital services in Azerbaijan's banking sector.

The study addresses two research questions:

RQ1. What are the main determinants of digital banking service quality identified in the literature?

RQ2. How can these determinants be transformed into practical improvement priorities for Azerbaijani banks?

2. Materials and methods

The study applies a **structured qualitative literature synthesis**. Seven academic studies published between 2022 and 2025 were selected according to their relevance to digital banking, service quality, customer satisfaction, technological readiness, bank selection, and digital transformation.

Four studies focused directly on Azerbaijan and examined digital banking and open banking (Abbasov, 2024), banking products and services (Abbasova, 2024), bank-selection behaviour (Akhundov, 2024), and digital banking transformation (Hajiyeva et al., 2025). Three international studies were used to strengthen the

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conceptual framework through evidence on mobile banking quality (Al-Zu'bi & Al-Gasawneh, 2022), technology readiness (Ho et al., 2025), and online banking satisfaction (Gazi et al., 2024).

The literature was analysed thematically. Recurring factors were grouped into six dimensions: usability, speed and system performance, reliability, security and trust, information transparency and support, and technology readiness.

The conceptual relationship applied in the study can be summarized as:

Digital service quality → Customer satisfaction → Continued use and loyalty

3. Results

3.1. Usability and system performance

The literature consistently identifies simplicity, interface quality, and system performance as important components of digital banking quality. Abbasov (2024) highlights perceived ease of use as an important factor in digital and open banking adoption. Al-Zu'bi and Al-Gasawneh (2022) also demonstrate that interface design and system quality significantly influence customer satisfaction.

For Azerbaijani banks, this means that frequently used services such as login, transfers, payments, card management, and transaction history should require as few unnecessary steps as possible. Applications should also operate quickly and consistently.

Akhundov (2024) shows that service speed and quality influence customers' bank-selection decisions in Azerbaijan. Therefore, poor application performance can affect not only satisfaction but also competitiveness.

Important indicators may include:

- application loading time;
- transaction completion time;
- successful transaction rate;
- task completion rate;
- transaction abandonment rate.

These measures allow banks to evaluate digital quality from the customer's perspective rather than relying only on technical infrastructure indicators.

3.2. Reliability, security, and trust

Reliability is particularly important in financial services because technical failures directly affect transactions and customer confidence. Gazi et al. (2024) identify reliability and security as significant determinants of online banking satisfaction. Abbasov (2024) likewise emphasizes trust, reliability, and security in the development of digital banking in Azerbaijan.

Banks should therefore ensure high system availability, accurate transaction processing, rapid recovery from technical problems, and effective customer communication during service interruptions.

Security measures should protect customers without making digital banking unnecessarily complicated. Biometric authentication, transaction notifications, device verification, and risk-based authentication can provide protection while maintaining convenience.

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Useful performance indicators include:

- system uptime;
- transaction failure rate;
- authentication success rate;
- number of security-related complaints;
- average system recovery time.

The main objective should be to achieve a balance between security and usability.

3.3. Transparency, support, and digital inclusion

Information quality is another important dimension of customer satisfaction. Al-Zu'bi and Al-Gasawneh (2022) demonstrate that accurate and understandable information positively affects mobile banking satisfaction. Abbasova (2024) also highlights transparency and accessibility as important areas for the development of banking services.

Customers should therefore clearly see fees, exchange rates, conditions, and transaction details before confirming financial operations. Error messages should also explain both the problem and the possible solution rather than displaying generic technical notifications. Customer support is equally important. Gazi et al. (2024) identify responsiveness as a component of online banking service quality. Digital channels should consequently provide accessible support through live chat, structured help sections, or efficient connections with customer service representatives.

Banks must also consider differences in digital literacy and technology readiness. Ho et al. (2025) demonstrate that technology readiness affects the relationship between customer satisfaction and loyalty. This is particularly relevant to financial inclusion because customers with limited digital experience may require simplified interfaces, clear instructions, and additional assistance.

For Azerbaijani banks, digital inclusion may be improved through step-by-step onboarding, understandable terminology, short instructions, accessible interface design, and educational messages on security and fraud prevention.

3.4. Proposed digital banking service quality framework

The synthesis identifies six interconnected dimensions that can form a practical framework for Azerbaijan's banking sector.

Table 1.

Dimension	Main objective	Possible indicator
Usability	Reduce customer effort	Task completion rate
Speed	Reduce waiting time	Transaction completion time
Reliability	Ensure continuous service	System uptime
Security and trust	Protect users and transactions	Authentication success rate
Transparency and support	Improve understanding and problem resolution	Response and resolution time
Digital inclusion	Support different user groups	Onboarding completion rate

The framework demonstrates that digital banking quality should be evaluated as an integrated customer experience rather than through isolated technological indicators.

4. Discussion

The results suggest that digital banking service quality is multidimensional. Technical performance alone is insufficient because customers experience the application, security mechanisms, information, and support services as parts of the same banking relationship.

This is consistent with Hajiyeva et al. (2025), who associate banking digitalization in Azerbaijan with technological development, competition, and changing customer behaviour. Therefore, responsibility for digital service quality should extend beyond IT departments to include product development, marketing, cybersecurity, and customer service.

The findings also indicate that reliability and usability have both technical and behavioural consequences. Slow or unstable systems reduce customer satisfaction, while unclear security or fee information can weaken trust. Gazi et al. (2024) particularly emphasize reliability in online banking, while Al-Zu'bi and Al-Gasawneh (2022) identify system quality as a major determinant of mobile banking satisfaction. The Azerbaijani context also demonstrates the competitive importance of digital experience. Akhundov (2024) shows that speed and service quality influence bank-selection decisions. As most banks increasingly provide similar basic digital functions, competitive advantage may depend less on whether digital banking exists and more on how effectively it works.

Furthermore, improving current digital banking services may facilitate the transition toward open banking. Abbasov (2024) indicates that customer experience with digital financial services is relevant to the future use of open banking in Azerbaijan. A reliable and understandable digital environment can therefore strengthen readiness for more advanced financial technologies.

Banks should consequently introduce a small set of continuously monitored indicators such as system uptime, successful transaction rate, transaction completion time, customer-support response time, and onboarding completion rate. These indicators would allow service quality to be monitored as an ongoing process rather than only during major technological upgrades.

5. Conclusion

Digital banking has become a central part of customer interaction with financial institutions. For Azerbaijan's banking sector, improving digital service quality can strengthen customer satisfaction, competitiveness, financial inclusion, and readiness for further financial digitalization.

The literature synthesis identifies six principal dimensions of digital banking quality: usability, speed, reliability, security and trust, transparency and support, and digital inclusion. These dimensions are strongly interconnected and should therefore be managed within a unified customer-experience framework.

Azerbaijani banks should simplify common digital operations, improve system stability and transaction speed, maintain strong but convenient security mechanisms, provide transparent information on fees and conditions, strengthen digital customer support, and design services suitable for customers with different levels of technological readiness.

The main limitation of the study is its reliance on secondary literature rather than primary customer data. Future studies may test the proposed framework through surveys of Azerbaijani banking customers or comparative evaluations of mobile banking

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applications. Overall, the competitiveness of digital banking will increasingly depend not on the availability of mobile and online services but on their ability to provide a simple, fast, reliable, secure, transparent, and inclusive customer experience.

References

1. Abbasov, A. A. (2024). An analysis of the impact of digital banking on the future use of open banking: A Toda–Yamamoto causality analysis in the context of Azerbaijan. *Economics and Administration, 8*(2), 167–189. https://doi.org/10.30546/2521-6341.2024.02.017
2. Abbasova, L. (2024). Analysis and evaluation of bank products and services in Azerbaijan and in the world in the modern era. *Economics and Administration, 8*(2), 143–155. https://doi.org/10.30546/2521-6341.2024.02.015
3. Akhundov, T. (2024). Factors influencing customers' bank selection decision in Azerbaijan. *ACTA VŠFS, 18*(1), 68–91. https://doi.org/10.37355/acta-2024/1-04
4. Al-Zu'bi, K., & Al-Gasawneh, J. A. (2022). An integrated model of mobile banking service quality and customers' satisfaction: Evidence from Jordanian mobile banking users. *International Journal of Data and Network Science, 6*(4), 1609–1618. https://doi.org/10.5267/j.ijdns.2022.4.017
5. Gazi, M. A. I., Al Masud, A., Amin, M. B., Hossain, M. A., Senathirajah, A. R. bin S., & Abdullah, M. (2024). Evaluating customer satisfaction with the quality of online banking services after COVID-19: Developing country perspective. *Cogent Business & Management, 11*(1), 2423057. https://doi.org/10.1080/23311975.2024.2423057
6. Hajiyeva, N., Hajiyeva, N., & Mammadova, A. (2025). Development of bank marketing in the conditions of digital transformation in Azerbaijan. *Journal of Integrated Engineering and Applied Sciences, 3*(2), 217–228. https://doi.org/10.5281/zenodo.15786745
7. Ho, H., Han, S.-M., Cha, J., & Pham, L. (2025). Mobile banking customer satisfaction and loyalty: The roles of technology readiness. *Journal of Risk and Financial Management, 18*(7), 403. https://doi.org/10.3390/jrfm18070403

http://doi.org/10.5281/zenodo.21930845