

ANALYSIS OF GEN Z PERCEPTION OF MOBILE BANKING OPERATIONAL RISKS OF SYARIAH BANKS (Case Study of Islamic Banking Students of UM Surabaya)

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Abstract

This study aims to explore the perceptions of generation Z, especially students, towards the operational risks of mobile banking at Islamic banks. The research method used is qualitative with a case study approach, where data is collected through interviews with nine informants selected through purposive sampling techniques, namely Islamic Banking students of UMSurabaya who actively use mobile banking services at Islamic banks. Data validity is obtained through triangulation, and data analysis is carried out by data reduction, data presentation, and drawing conclusions. The results of the study show that the majority of informants assess this service positively because it is in accordance with Islamic principles, although there are concerns regarding technical risks and data security. This shows that the success of mobile banking services depends on the balance between Islamic principles and the quality of a system that is safe for users.

Keywords: *Generation Z, Mobile Banking, Perception, and Operational Risk.*

INTRODUCTION

Generation Z or Gen Z is the next generation after the millennial generation. Generation Z consists of individuals born from 1998 to 2012. They are known to be very familiar with the internet and digital technology from an early age. Generation Z grew up in an era where technological development was very rapid and digital devices were so easy to obtain, making them accustomed to using various digital devices.(Ni Ketut Krisna Andriani, 2022).

Figure 1
Population of East Java According to Generation Classification



Source: Results of the Central Statistics Agency

The majority of East Java's population is Gen Z. The results of the 2020 Population Census show that of the total population of East Java of around 40.67 million people, more than 25% are Gen Z, of which

there are around 10.2 million. Given that most Gen Z are currently of productive age and population growth tends to be stable, the estimate for 2024 is likely not much different (Central Bureau of Statistics, 2020). As a generation born in the digital era, Gen Z needs internet access, and quickly mastered the use of digital devices such as laptops, tablets, smartphones, and others. On the negative side, Gen Z spends more time accessing digital devices, surfing the internet, communicating, and interacting on social media than meeting other people in person. However, on the positive side, they join communities through modern media and technology networks. (Widiani, 2023).

Generation Z's perception is important because this group is one of the potential market segments that will dominate the world of work and the economy in the next few years. (Syafika et al., 2025). Gen Z has unique characteristics compared to previous generations, such as Gen X and millennials. They not only adopt technology quickly but also tend to be critical of the usability and security of the technology. Gen Z's perception of choosing a service does not only depend on the aspect of ease of use (Utami, 2010).

As an alternative financial institution, Islamic Banking in Indonesia brings a new sector into the Indonesian banking system which has been dominated by the conventional banking system. According to Law No. 10 of 1998 concerning Banking, a bank is defined as a business entity that collects funds from the public and gives funds back to the public in the form of credit or other financial products. (Law Number 10 of 1998).

Islamic Bank innovates in improving services to customers. The internet not only provides information but also enables financial transactions such as banking. Currently, the internet is very important for human life, especially in the banking industry (Kusuma & Asmoro, 2021). Customers can make non-cash transactions anytime and anywhere via mobile phones connected to the internet through mobile banking, one of the important technological innovations in the banking industry that allows faster, more practical and efficient access to banking services.

Figure 2
 Islamic Banking Mobile Banking Performance



Source: ASBISINDO

Based on ASBISINDO data, the quality of mobile banking services of Islamic General Banks increased from 2023 to 2024. BSI achieved the highest performance with a score of 94.59% in 2024, up from 93.81% in 2023. Bank Muamalat followed with 93.76%, up from 90.59%. KB Bank Syariah recorded an increase from 74.98% to 78.67%. This data shows the commitment of Islamic banks in developing digital technology that is more convenient for users (ASBISINDO, 2024). With mobile banking, users can perform various transactions easily without having to go to an ATM that may be quite far from home.

Operational risk is a loss caused by inability or failure in internal processes, human error, system disruptions, or external events that affect bank operations. (DM Sari et al., 2021). Operational risks perceived by users are often related to three main aspects (Billytona et al., 2024): (1) data security and protection, (2) operational transparency in accordance with sharia principles, and (3) dependence on technological infrastructure that is often considered not yet fully optimal. According to research conducted by the Indonesian Sharia Fintech Association (AFSI) in 2022, users including the younger generation are concerned about the ability of sharia banks to protect their personal data. (Indonesian Sharia Fintech Association, 2022).

The purpose of regulations issued by the government, especially the Financial Services Authority and Bank Indonesia, is to improve the security and reliability of the digital banking system, including mobile banking. Regulations such as OJK No. 12/POJK.03/2018 concerning the implementation of digital banking services and BI's policy on cyber security standards aim to protect customers from operational threats that arise as a result of the increase in the digital banking industry. (Financial Services Authority, 2018). Islamic banks that continue to strive to follow technological developments but face challenges in ensuring the security of their digital services. Operational risk challenges that need to be anticipated, especially those related to data security and the reliability of mobile banking systems (Hidayah et al., 2024).

The problems that are often faced are cases of account hacking or internet banking often occur due to malware attacks, namely malicious software that infects customer browsers. In addition, the risks experienced by Generation Z are often influenced by their direct experience and financial knowledge. (Mahanani et al., 2025). For example, a lack of education about digital service security can exacerbate distrust of mobile banking services, even if the service has the appropriate security certification. This is in line with the findings of Christiani (2022), who stated that views on the security and reliability of technology influence the adoption of mobile banking among Millennials and Generation Z. (Christiani & Immanuela, 2022). Therefore, it is important to understand more deeply the perspective of Gen Z on the dangers that can arise from the use of Islamic mobile banking.

Students of the Islamic Banking Study Program are part of Gen Z who are enthusiastic about technological developments in the banking sector. This enthusiasm can be seen from the many Islamic Banking students of UMSurabaya who have utilized mobile banking to facilitate daily financial transactions. They realize that this technology offers convenience and speed in accessing banking services, in accordance with the needs of the current generation. The existence of Islamic banking students as research subjects is very important, because they not only act as active users of mobile banking services, but also as prospective practitioners in the Islamic banking sector. Their role will later contribute to the development and implementation of Islamic-based financial technology. Their understanding of the benefits, challenges, and aspects of Islamic compliance in digital banking services can provide valuable insights for innovation in Islamic financial services in the future.

Despite having studied the concept of Islamic banking and the differences with conventional banks, especially regarding the issue of usury, around 43% of the total Islamic banking students have Islamic bank accounts and have actively used Islamic mobile banking to support their financial activities. (results of Ratih's interview, 2024). This shows that although some students have started to switch to Islamic banking services, the level of utilization of Islamic mobile banking applications is still relatively low. Factors regarding views on security or understanding of Islamic values in a digital context influence their decisions in using mobile banking technology.

By taking a case study on students of the UMSurabaya Islamic Banking Study Program, to understand more deeply how they perceive operational risks in using Islamic bank mobile banking. This study not only identifies various operational risks such as system disruptions, transaction errors, or data security issues, but also analyzes how students view these risks. This analysis includes factors such as digital literacy levels, their understanding of sharia principles, and trust in the security of the banking technology they use.

Based on these problems, research is needed that examines the Analysis of Gen Z's Perception of Mobile Banking Operational Risks in Islamic Banks, with the Case Study of this research being Islamic Banking Students of UMSurabaya. This study aims to analyze in depth the views of Generation Z on the operational risks of mobile banking in Islamic banks, with an emphasis on various aspects of risk, including security, convenience, and sharia compliance.

LITERATURE REVIEW

Generation Z Perception

According to Ananda Hulwatun Nisa, et al. (2023), perception is the way our senses collect, process, and understand stimuli received through our five senses. Perception also includes the process of processing and interpreting information that occurs in our minds. Thus, perception is a complex mechanism that allows us to understand the meaning of the world around us through the use of the senses.(Nisa et al., 2023).

Generation Z, which refers to students, has greater knowledge about Islamic banks, a better understanding of the organization, and greater opportunities to engage with Islamic banks.(WA Sari et al., 2023). These student perceptions include how they view, understand, and respond to various aspects of their education, learning environment, or experiences during their studies. This includes their opinions about the quality of education, academic environment, interactions between students, and other factors that influence their learning experience.(Hasibuan et al., 2023).

However, it is possible that some students face technical challenges or security issues when using mobile banking services. The success of the platform is influenced by the performance of the technology, the clarity of information, and the ease of users in utilizing the various features available.(Fandi, 2019). Therefore, further research or direct survey among students can help to gain a better understanding of students' perceptions of Islamic bank mobile banking services. This research can include questions regarding user satisfaction, security, and suggestions for improving services. Thus, Islamic banks can provide students' needs and desires by using mobile banking platforms.

Mobile Banking

Digital technology is the use of electronic systems and devices that process, store, and transmit data in digital form. Unlike analog technology which uses continuous signals, digital technology relies on discrete signals to represent information.(Wibowo et al., 2023). The transformation from analog to digital systems has brought about a major revolution in various aspects of life, from communication, education, business, to financial services.(Rianita et al., 2024).

Digital technology in mobile banking has revolutionized the way customers interact with banking services. One of the latest innovations in mobile technology that provides digital financial services is mobile banking. With m-banking, customers can perform various types of transactions, including transferring money, paying bills, and checking balances.(Indonesian Bankers Association, 2014). The presence of micro-banking by retail banks and microfinance institutions in various countries has had a significant impact on the market, despite the existence of various effective delivery methods for conventional banking products, such as ATMs, telephones, and internet banking. The increasing use of mobile devices marks a new development in banking technology known as m-banking.(Barnes & Corbitt, 2020). Thus, m-banking opens up great opportunities for users and financial institutions to use banking services via mobile devices more quickly and easily.(Financial Services Authority, 2015).

By providing access to banking services to individuals who were previously out of reach of physical branches, mobile banking plays a vital role in increasing financial inclusion. As such, it can increase banking penetration in developing countries and remote areas. A more personalized and efficient user experience has been provided through the use of the latest technology in mobile banking development.(Qothrunnada et al., 2023). For example, users can use virtual assistants or chatbots to get quick help in resolving questions or issues. However, it is important to remember that mobile banking adoption also depends on people's technological and financial knowledge. Therefore, education and training strategies are essential to ensure that users can fully utilize the potential of mobile banking services to better manage their finances.(Suwandi & Abin, 2023).

M-banking is a banking service that makes it easier for users to carry out various banking transactions, view account information, pay bills, track account balances, make purchases of goods or services, and even monitor investments via mobile devices, such as smartphones or tablets.(Zubaili et al., 2023).

Operational Risk

Risk is a predictable and unpredictable event that has a negative impact on the bank's income and capital and cannot be avoided. (Nelly et al., 2022). Operational risk is defined as the possibility that arises due to failure in internal processes, human error, or system disruptions that can have a negative impact on bank operations. (Anggitaningsih, 2024).

Risk perception is how a person views and evaluates the possibility and impact of a danger or loss they face. (Urnika & Khasanah, 2023). Risk is not only about the probability of a bad event, but also the perception of the severity of the consequences of that event. The perception of operational risk by users reflects their views on the likelihood of a disruption that could affect security, system disruption, and service convenience. (Khairudin & Qadariyah, 2024). Operational risks faced in mobile banking services include: (Khairani, 2023)

1. Security Risks
 - a) Fraud, customers or third parties can become victims of fraud, such as phishing or identity theft resulting in financial loss.
 - b) Cyber attacks, including attacks such as malware, DDoS or hacking that can expose customer data or even disrupt services.
 - c) Data Breach, leakage of customer personal data can occur through application or server security gaps which cause loss of important data.
2. System Risk
 - a) System Disruption or System Failure caused by technical problems, such as server downtime or application bugs that can cause mobile banking to be inaccessible.
 - b) Data Integrity, errors in synchronization or data processing can result in inaccurate information, such as incorrect balances.
 - c) Dependence on Third Parties, many banks work with third parties for mobile banking infrastructure, so if the third party experiences problems, bank services can be disrupted.
3. Internal Operational Risk
 - a) Human Error, Errors in system management, such as incorrect data entry or errors in security system settings.
 - b) Abuse of Access, Internal parties who have access to the system can abuse it for certain purposes, such as data manipulation or information theft.

Preventing operational risks in mobile banking services is essential to protect customers and banks from security threats, system failures or other operational errors. Here are the steps to prevent operational risks, including: (Khairi Riyadhi, 2021):

1. Use anti-virus and firewall programs to protect your computer from data leaks.
2. Protect the bank concerned and report any actions deemed suspicious.
3. Avoid accepting emails or SMS that ask for personal information.
4. Make sure the internet banking website is correct.

RESEARCH METHODS

This study uses a qualitative method with a case study approach. Qualitative research aims to deeply understand the problems that occur in research subjects through analysis. (Prof. Dr. Sugiyono, 2019). This method allows researchers to explore the experiences, views, and understanding of research subjects regarding the operational risks of Islamic bank mobile banking more comprehensively. The case study approach is used to study and understand a particular phenomenon in detail in its original context. (Prof. Dr. Sugiyono, 2018). In this study, researchers collect data in detail by applying various information gathering techniques. This study focuses on a phenomenon that is appropriate in a particular context, namely the perception of Islamic banking students as representatives of Generation Z who already have a basic understanding of Islamic banking and are accustomed to using financial technology. Primary data were collected through interviews with students of the Islamic Banking Study Program at the University of Muhammadiyah Surabaya. These interviews were designed to explore their views and understanding of

operational risks in the use of mobile banking in Islamic banks. Meanwhile, secondary data were collected from various relevant documents and reports, such as annual reports of Islamic banks, publications from Bank Indonesia and the Financial Services Authority (OJK), as well as academic journals and literature reviews related to previous research on operational risks and perceptions of mobile banking users.(Fadli, 2021).

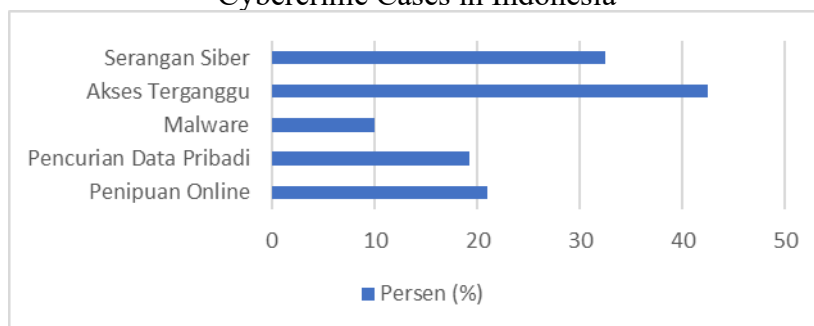
The data analysis technique in this study uses a qualitative approach, by applying content analysis to identify themes and patterns from the results of interviews and group discussions.(Rijali, 2019). The results of the analysis are then interpreted to understand the factors that influence perceptions and their implications for the use of mobile banking services. The researcher used a purposive sampling technique to select informants who met the research objectives.(Memon et al., 2023).

RESULTS AND DISCUSSION

Operational Risks of Islamic Bank Mobile Banking

Mobile banking services at Islamic banks offer convenience for users to conduct various financial transactions efficiently and flexibly. However, the use of digital technology in the banking sector also brings its own challenges, especially related to operational risks. These risks include human error, fraud, cyber attacks, system failures, and weaknesses in work procedures and internal controls. These risks are a major concern in the operational management of banks, especially those based on sharia, which must maintain the integrity of services while still complying with sharia principles.(DM Sari et al., 2021).

Diagram 1
Cybercrime Cases in Indonesia



Source: APJII

The 2024 Indonesian Internet Service Providers Association (APJII) report shows that the number of cybercrimes in Indonesia is increasing. As many as 32.5% of internet users experienced online fraud, 20.97% became victims of personal data theft, 19.31% were infected with viruses or malware, and 10.04% faced account access disruptions due to cyber attacks. Meanwhile, 42.45% of users are not yet aware of the vulnerability to their personal data(APJII, 2024). This data shows that cybersecurity is one of the crucial issues in the development of digital banking services, including in the context of Islamic banks.(Rikie Kartadie, 2024).

Operational risks in mobile banking include various important aspects such as personal information leaks, system disruptions, and potential digital fraud.(Yolanda et al., 2024). Leakage of personal information raises concerns regarding the protection of customer privacy, while system disruptions can hinder customer access to financial services when needed. In addition, the increase in online fraud modes causes potential financial losses for customers and can damage the image and trust in Islamic banking institutions. These three aspects of risk not only impact operational efficiency, but also the public's acceptance of Islamic financial technology as a whole.(Khairudin & Qadariyah, 2024).

Customers' views on these risks greatly influence the adoption rate of mobile banking services. Concerns about security and data protection can create resistance in using digital services, especially if customers feel they do not receive adequate guarantees from service providers.(Pratama Putra et al., 2023). The impact of operational risk not only includes technical and financial losses, but can also damage the reputation of Islamic financial institutions. Therefore, a deeper understanding of user perceptions and needs

is key to increasing acceptance and successful implementation of Islamic bank-based mobile banking services.(Aprilia et al., 2022).

In facing these challenges, efforts to mitigate operational risk require collaboration from various parties. Sharia banks as service providers are required to not only ensure the security of information technology systems, but also to ensure that banking operations remain in accordance with sharia principles. The government as a regulator plays a role in setting policies and strengthening supervision of digitalization practices in financial services. Meanwhile, the community or customers also have an important role in increasing awareness and digital literacy to avoid potential cybercrime.(Hardinata et al., 2024). Operational risk is not only limited to technical aspects, but also concerns compliance with Islamic values. Islamic banks must be able to guarantee that all transactions carried out, even in conditions of disruption or system failure, remain free from elements of gharar (uncertainty), riba (interest), and maysir (gambling or speculation), as regulated in the principles of Islamic economics.(Finance, 2024)

Regulations governing risk mitigation in Islamic banking have been stipulated in the Financial Services Authority Regulation (POJK) No. 13/POJK.03/2021 concerning the Implementation of Risk Management for Islamic Commercial Banks and Islamic Business Units. This regulation emphasizes that Islamic banks must develop a risk management strategy that includes system security, internal governance, and customer protection. In addition, the fatwa from the National Sharia Council of the Indonesian Ulema Council (DSN-MUI) also serves as a guideline so that digital services remain in accordance with sharia and do not conflict with Islamic legal transaction ethics.(Financial Services Authority, 2021).

Education and digital literacy for customers are important factors in efforts to reduce operational risks in sharia mobile banking services. Many customers still have limited understanding of digital threats and the importance of protecting personal data. In this regard, sharia banks have the responsibility to actively provide socialization and education to users regarding preventive measures, recognizing digital fraud modes, and understanding the rights and obligations as users of sharia-based digital services.(Eri Kusnanto et al., 2024). With a comprehensive approach, operational risks can be minimized, so that mobile banking services are not only accepted by the wider community but are also able to maintain trust and support the development of the sharia financial services system.(Efry Husin Juani, 2024).

Generation Z's Perception of Operational Risks of Islamic Bank Mobile Banking

This study aims to determine the perception of generation Z towards operational risks in This study aims to determine the perception of generation Z towards operational risk in the use of mobile banking of Islamic banks. The case study was conducted on students of the Islamic banking study program at UMSurabaya from 2020 to 2023, using a purposive sampling technique. Of the total 76 students, 43 students have used the mobile banking services of Islamic banks to support their financial activities.(Ratih's observation results, 2024).

According to Rebecca S. Robinson in Mumtaz Ali (2023), purposive sampling is a sampling technique carried out deliberately by researchers by selecting individuals or groups who are considered informative to answer research questions.(Memon et al., 2023). Based on the purposive sampling technique, the researcher selected informants who met the criteria, namely students who already had accounts and actively used Islamic bank mobile banking. Thus, the researcher took nine informants as samples that were considered representative. Data collection techniques were carried out through interviews and distributing questionnaires to the nine informants.

Based on interviews with nine Islamic Banking students, several main factors were found that influenced their decisions in using Islamic bank mobile banking services, including compliance with Islamic principles, ease of use, level of trust, and potential risks related to security and technical disruptions. These factors are interrelated and provide a comprehensive picture of how Generation Z views and uses Islamic bank mobile banking services. Compliance with sharia principles is the main factor that encourages informants to choose sharia bank mobile banking. Most informants said that they chose this service because it is in accordance with sharia principles that avoid usury and reflect Islamic values. As conveyed by

informant 3; *"I use Islamic bank mobile banking because it is in accordance with Islamic principles and does not contain any usury elements, the application is also practical and has Islamic features."* (Lely interview results, 2025). In addition, informant 6 said that the existence of Islamic features such as the zakat calculator is also an added value for users; *"All Islamic bank mobile banking transactions are free of usury, I can also pay zakat directly via cellphone so it is more efficient"* (interview results Mochamad, 2025).

Several other informants stated that the use of mobile banking was due to the demands of practical work or internship activities. Informant 1 said; *"Initially I used it during practical work or internship and was required to have it, so I continue to use it until now."* (Nadiyah interview results, 2025). Likewise, informant 4 said; *"I used this service during my internship, since then I have tried to continue to manage my daily finances and it turned out to be quite helpful."* (Latifah interview results, 2025). This finding supports the research conducted by Amin (2020), which confirms that the compliance factor with sharia principles (shariah compliance) influences user compliance in choosing sharia financial services. Sharia principles are considered a guarantee for users that their transactions are not involved with elements that are contrary to Islamic teachings, such as usury. (Amin, 2020).

Ease of use is also an important factor driving the adoption of Islamic mobile banking. Most informants expressed that they felt very helped by the convenience offered by this service in their daily financial activities. According to informant 1; *"I use mobile banking very often, almost every day. I usually use it to transfer money, pay bills, and top up e-wallets. It's more practical than having to go to an ATM or bank directly."* (Nadiyah interview results, 2025). This was also confirmed by informant 2; *"Every day I use mobile banking for daily transactions. Whether it's to pay for online shopping, transfer to friends, or just check the balance. So, for me, this has become a necessity"* (results of Yuliana's interview, 2025). Informant 4 also confirmed this finding by stating; *"I use mobile banking almost every day. Most often for e-wallet top-ups and payments with QRIS. It is very helpful in daily financial activities"* (Latifah interview results, 2025). Meanwhile, informant 3 said that even though it is not used every day, mobile banking is still a solution when there is an urgent need; *"Sometimes I use mobile banking, especially if there is an urgent need such as transfer or paying bills. Not every day, but quite often"* (Lely interview results, 2025).

This view is reinforced by the Technology Acceptance Model Theory by Davis (2019), which states that someone will adopt new technology if they feel the benefits and ease of use. (Davis, 2019). In this case, Islamic mobile banking provides convenience that is highly appreciated by Generation Z, who are accustomed to digital life and technology that makes daily transactions easier. (Coal & Anggraini, 2022).

The technical disruption aspect is also a challenge in using mobile banking. Several informants revealed technical problems, such as failed transactions, system errors, or delays in processing transactions. Informant 1 stated; *"I once experienced technical disruption when using mobile banking. At that time my transaction failed, finally I went straight to the bank to ask about the problem and find a solution"* (Nadiyah interview results, 2025). Informant 7 revealed that there was a delay in the application process; *"Sometimes the application takes a long time to load when used, so it delays transactions so I have to wait until the system returns to normal."* (Farida interview results, 2025). Meanwhile, informant 9 also shared a similar experience, especially at certain times; *"Yes, I have experienced obstacles, especially when I want to transfer at night. Sometimes the transaction fails because the system is under repair. It feels quite annoying, especially if you need a fast transaction"* (Yuda interview results, 2025).

This finding shows that there are operational risks in the use of digital services that need to be considered by service providers. This operational risk is related to the possibility of system failure or external threats that can affect the smoothness of transactions, Dominick (2023), in his research shows that system quality greatly determines the success of the information system and affects satisfaction in the context of digital banking. (Dominick, 2023).

This is also in line with the operational risk concept of the Basel Committee on Banking Supervision (2004). Service providers must continue to improve system quality in order to reduce technical disruptions and increase user satisfaction. (Bank for International Settlements, 2004). The level of trust in the mobile banking services of Islamic banks also plays an important role in the decision to use. Informant 8 stated; *"I*

feel safe using this service because it has a good reputation and there is supervision from the Sharia Supervisory Board (DPS)"(results of interview with Dwi, 2025).

Informant 2 also said something similar; *"I trust using Islamic bank mobile banking because there is a DPS that guarantees transparency of customer transactions, so I feel safe."*(results of Yuliana's interview, 2025). Meanwhile, informant 9 added; *"I believe this service is in accordance with Islamic principles and has a good banking reputation, so I am sure this bank can manage my finances with integrity."*(Faris interview results, 2025).

This is in line with the theory of trust put forward by Daniel (2019), which states that trust is a key factor in the acceptance of technology, especially in online-based information systems. Trust in system security, supervision from DPS and bank reputation are believed to provide a sense of security for users, which is very important for technology adoption.(Belanche et al., 2019). However, although some informants showed a high level of trust, some of them still had concerns about the security aspects of digital data. These concerns were mainly related to the potential for data leaks and cyber attacks that are increasingly rampant in the digital era.

Informant 5 revealed that system constraints still often occur; *"Islamic banks are actually quite safe, but I am still worried because now there are often operational risks such as data leaks and many cyber threats"* (Faris interview results, 2025). This is reinforced by the statement of informant 4; *"I see operational risks in mobile banking including data security threats, system failures, and user errors. If not handled properly, this can have a negative impact on customers and the bank itself."*(Latifah interview results, 2025). Meanwhile, informant 6 highlighted data security threats as a major concern; *"In my opinion, the risks in mobile banking are quite worrying, especially in terms of data security. There is always the possibility that customer accounts can be hacked by irresponsible parties."*(interview results Mochamad, 2025).

The informants indicated that there were concerns about the risks associated with using mobile banking services, especially in terms of system security and reliability. This is in line with the findings of Nuntupa and Rahman (2023), which showed that perceptions of data security and privacy risks can reduce users' level of trust in digital systems. Therefore, despite trust in sharia principles, security risks remain a concern that needs to be carefully managed by service providers.(Nuntupa Fadila & Rahman, 2023).

The risks that users are most concerned about are related to the potential for personal data leaks and the risk of digital fraud such as phishing. This risk is considered to have an impact on long-term trust in Islamic financial institutions. In addition, system disruptions during important transactions were also identified as significant risks that affect user satisfaction. In Nafa Latif's research (2024), it is emphasized that the success of digital transformation in financial services is highly dependent on the system's ability to minimize risk and ensure the reliability of the transaction process.(Latif et al., 2024). In Islamic banking, emphasizing the importance of digitalization while still implementing the principle of prudence in managing operational risks. In addition, stable and reliable system quality plays an important role in increasing user satisfaction.(Financial Services Authority, 2020).

The following table summarizes the answers from nine informants based on the same question regarding perceptions of operational risks of Islamic bank mobile banking, along with their classification.

Table 1

Summary of Informant Perceptions of Operational Risks of Islamic Bank Mobile Banking

No	Informant Name	Main Answer	Classification	
			Agree	Don't agree
1.	Islamic Rizqa Hidayah Foundation	Technical system failure (transaction failed).	✓	
2.	English	Data leaks and cyber attacks.	✓	
3.	Lely Dwi Rahmawati	Delays in transaction processing and cyber attacks.	✓	

4.	Latifah Nisa	Technical risks and information security.	✓	
5.	Faris Khoirudin	Cyber risks and data breaches.	✓	
6.	Mochammad Ikhlasul Amal	Risk of misuse of personal data.	✓	
7.	Dwi Salma Nabila	Risk of fraud or phishing and system disruption.	✓	
8.	Farida Fatmawati	System delays and operational disruptions.	✓	
9.	Yuda Esya Prasetya	System instability (maintenance downtime)	✓	

All informants are aware of operational risks, but still support the use of Islamic mobile banking for reasons of efficiency, convenience and compliance with Islamic principles. Thus, all informants are classified into the category "Agree" to the use of this service even with the note of the risks involved.

Discussion results

The results of the study show that Generation Z's views on Islamic bank mobile banking are greatly influenced by compliance with sharia principles. Most informants stated that they chose Islamic bank mobile banking services because they believed they were free from usury and in accordance with Islamic values. Features such as zakat calculators and ease in performing worship are also additional attractions. This reflects the tendency of the younger generation to prefer financial services that are in line with religious beliefs, as suggested by Amin (2020), who emphasized the importance of compliance with sharia principles in the decision to use services.(Amin, 2020).

Ease of use is the next factor that drives the adoption of this service. Informants feel the direct benefits of the ease of digital transactions, which provide efficiency and flexibility in daily financial activities. Unlike conventional methods that require visits to the bank, mobile banking allows transactions anytime and anywhere. This is in accordance with the Technology Acceptance Model theory which emphasizes that perceptions of benefits and convenience will increase acceptance of new technology.(Davis, 2019).

Trust in the mobile banking system of Islamic banks is also an important aspect in user perception. Informants feel safe in making transactions because of supervision from the Sharia Supervisory Board (DPS) and the good reputation of the bank. However, several informants expressed concerns regarding the security of personal data, such as the threat of information leaks or cyber attacks. Data security is a serious concern in decision making, even though sharia values have been met. This aspect is in line with the theory of digital trust which states that a sense of security towards systems and data greatly influences decisions about using technology.(Belanche et al., 2019).

However, operational risk is also a challenge in the use of mobile banking. Several informants expressed bad experiences related to technical disruptions, such as failed transactions or system delays. These disruptions cause inconvenience and can reduce the level of user satisfaction. This shows that even though the system has met sharia criteria, the technical quality and resilience of the system also greatly determine user comfort. Therefore, service providers need to overcome this operational risk by improving the quality and reliability of the system.(Nuntupa Fadila & Rahman, 2023).

Overall, this study indicates that Generation Z's views on Islamic bank mobile banking are formed from the interaction between compliance with Islamic principles and expectations of technological quality. The success of Islamic mobile banking services is very much on the provider's ability to maintain a balance between religious and technical aspects. Therefore, Islamic banks need to continue to innovate by offering services that not only meet Islamic principles, but also have reliable and secure infrastructure, to meet the needs of the younger generation who are very much into technology.(Latif et al., 2024).

CONCLUSION

Based on the results of the study, it can be concluded that the majority of informants have a positive perception of the use of Islamic bank mobile banking services, because it is considered to be in line with the principles of trust and ease of transactions. However, there are still concerns regarding operational risks such as technical aspects and potential system vulnerabilities. This indicates that although informants have a positive perception and are open to digital innovation in banking, they are not free from expectations regarding the quality of service and protection for users.

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