

Exploring user feedback on sharia FinTech apps: a Netnographic study in Indonesia

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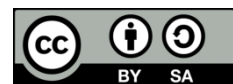
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ABSTRACT

The rapid growth of Sharia FinTech applications in Indonesia has raised questions about user perceptions and experiences. This study employs a Netnographic approach to explore user feedback on Sharia FinTech apps through reviews posted on the Google Play store. The research analyzed 129 reviews from five Sharia FinTech applications between July and December 2023. The study reveals that 55.10% of users expressed overall satisfaction with the apps, appreciating their ease of use and Sharia compliance. However, significant challenges were identified, with 37.50% of negative reviews related to payment delays and interest issues. Other concerns included system errors, account creation difficulties, and poor customer service. These findings highlight the complex dynamics of user experiences with Sharia FinTech applications, demonstrating a generally positive reception but also pointing to critical areas for improvement. The study contributes to the understanding of Sharia FinTech adoption in Indonesia and provides valuable insights for application developers and Islamic microfinance institutions to enhance their services and address user concerns.

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1. INTRODUCTION

The digital era has tremendously impacted various fields of technology and information, including the industrial, commercial, and financial sectors [1]. The growth of technology-related businesses in Indonesia is accompanied by the emergence of various startup companies [2]. One of them is financial technology, which consists of two branches of knowledge combined to achieve a goal. These two disciplines are finance and technology [3]. The term financial technology, also referred to or shortened as FinTech, has been used in developed countries. In Indonesia, FinTech came to be known in 2015 and, since then, it continues to be used, especially, in recent years [4]. The FinTech concept that adopts technological innovation into the financial sector ensures a more practical, safe, and modern financial transaction process [5].

The adoption of FinTech into the banking industry comes with both advantages and disadvantages. On the positive side, individuals find it easier to make financial transactions. However, the drawback is that not all FinTech players provide the best services to their clients or consumers; and this can cause losses [6]. FinTech refers to technological innovation in the financial sector. Many finance-related tools and applications such as payment Apps, lending and borrowing, among others, are made possible by the advancement in FinTech. Based on these examples, the adoption of FinTech by the Islamic banking sector has the potential to develop the market and facilitate public access to Islamic banking facilities [7].

The emergence of the Halal Lifestyle in the digital era has strengthened the influence of Islamic Financial Technology or FinTech on economic growth [8]. The general public now has an alternative method, which is to visit the websites and applications of lending companies to complete a loan application process without going through banks and, for that matter, any other financial institutions. This is a major breakthrough facilitated by FinTech lending and borrowing services [9].

As a Muslim country, Indonesia is basically operating an economic or financial system governed predominantly by Islamic principles. Thus, with the rise of FinTech companies, Sharia-compliant FinTech companies have also emerged [1]. Indonesia's Islamic FinTech industry has a legal framework that is guided by the Financial Services Authority Regulation (POJK) No.77, which was implemented in 2016 to direct money lending services mediated by information technology. This rule also applies to conventional and Sharia FinTech services. However, there are additional rules for Sharia FinTech that are in reference to the *Fatwa* of the National Sharia Council of the Indonesian Ulema Council (DSN MUI) No. 117 issued in 2018 to regulate information technology-mediated financial services with Sharia principles [10]. The Indonesian financial sector is interwoven with the ethical values of Islam. As a religion which has a comprehensive approach to life, its rules (i.e., the Sharia principles) also govern the financial sector [11].

The Indonesian Ulema Council is credited with the issuing of regulations regarding Sharia FinTech. This regulation is named, "Fatwa of the Indonesia Ulema Standards Council No. 117/DSN-MUI/II/2018" and it discusses Sharia-compliant information technology-mediated financial services. A FinTech that offers Sharia-compliant economic products and services is expected to satisfy three requirements. First, it must be free from prohibited transactions; and, secondly, its products and services must also be in tandem with the Sharia principles governing contracts or transactions. Finally, it must uphold moral values and promote righteous deeds [12].

Islamic FinTech therefore provides cooperative transactions between lenders and borrowers. It does not charge interest but is rather based on a profit-sharing scheme with a pre-regulated loan term. There are six types of FinTech. The types of FinTech contracts approved in Islam include: *Al-bai'*, *Ijarah*, *Mudharabah*, *Musharakah*, *Wakalah*, and *Qardh* [13]. In addition, one of the influences of globalization is the creation by Muslim of a concept like Islamic or Sharia economics, which has to do with the study of economics from the perspective of Islamic law or tenets. This was necessitated by the need to promote human welfare [14].

The primary foundation of Sharia FinTech is the Qur'an, Hadith and *Ijtihad*. This is because since FinTech is a new product of society, the role of *Ijtihad* must be dominant in order to forestall the possibility of service providers deviating from the *Mu'amalat* standards set by the *Salaf* scholars [15]. Another issue is the fact that although Sharia is both ancient and complex, its relevance is observed from the perspective that the presence of Sharia FinTech can stimulate to a situation where Sharia-compliant financial service becomes more accessible to users or customers. Therefore, over time, Sharia-compliant finance will develop into a vibrant technologically innovative business just like the traditional FinTech services [16]. Transactions according to Islamic law are, of course, based on Qur'an and Hadith in all economic and trade relations. These transactions would be conscious of the economic rights of individuals, both the poor and the rich, which would be protected while still maintaining a high level of solidarity with the conventional society [17].

In the context of economic uncertainty worldwide, Islamic banking has emerged as an option for reorganizing the highly complex global economy. This study therefore investigated and examined the significance of the contribution of Islamic financial institutions to the revival of the world economy [18]. This trend is driven by the growth of e-commerce transactions, consumer acceptance of digital products, increased bank investment in technological infrastructure, and increasing public recognition of the digital native groups [19]. Although academics and practitioners stress the important role of Islamic financial technology for Islamic Microfinance, there have been no previous studies that highlight in general how Islamic Microfinance mobile applications are perceived by their users. Previous studies examined the positive effect of using Islamic Microfinance mobile applications, however, there has been no attempt to study perceptions of these applications. Therefore, this study tries to cover a gap that has not been studied by researchers before, namely the perception of users through the reviews they do on applications. This study has contributed as a reference and evaluation material for Islamic microfinance application developers and also managers of Islamic microfinance institutions [20]. Peer-to-peer lending therefore has two drawbacks: while it provides a solution, it puts borrowers at risk [21].

Thus, Sharia FinTech has specific criteria. These include: the absence of all elements of *riba*, *gharar* (fraud or uncertain business), *madharat* (negative impact), and *jahalah* (lack of transparency) between sellers and buyers. FinTech was founded in 2004 by the first Islamic FinTech startup, Beehive, in Dubai [22]. Sharia FinTech has therefore been beneficial in the financial sector and is safe for the people who use it, especially for MSMEs who need financing, because they do not have to be burdened with interest and payment obligations every month that are subject to bank fines for late payments [23].

Sharia FinTech has been developing very fast in Indonesia in recent times. On the contrary, due to its numerous challenges, including harm to society, the conventional FinTech has been sluggish in terms of growth. Therefore, the existence of Sharia FinTech must be able to solve this phenomenon [16]. The factors that affect attitudes towards the use of Sharia FinTech are the perceived benefits, ease of use, and its Sharia-compliance [24].

The research uses the Netnographical method. Netnography is anthropology-based qualitative research that relies heavily on the internet. Therefore, the discussion related to social media is based on qualitative descriptive secondary data that relied on phenomena through relevant reference analysis [25]. This study has contributed as a reference and evaluation material for Islamic microfinance application developers and also managers of Islamic microfinance institutions.

2. LITERATURE REVIEW

This section draws attention to the research that has discussed Islamic FinTech and its relationship with Islam as well as its impact on society. The use of advanced technology in all fields has had significant influence on the growth of many countries including Indonesia. In, especially, the economic sector, it has had both positive and negative impacts [26]. FinTech is an advancement which lending products are integrated with information technology from delivery to approval and payment, online and supported by SMS, so that lenders and borrowers do not have to meet face-to-face [27].

In a study conducted by [28], they note that several studies have examined Sharia FinTech or the combination of financial technology with Islamic banking principles. The potential of Islamic FinTech to promote Sharia-compliant products and increase economic inclusion is emphasized in a systematic literature analysis, which also underscores the growing interest in Sharia-compliant FinTech. In addition, in [29] has observed that Sharia-compliant digital banking, crowdfunding, and peer-to-peer lending platforms are examples of the creative use of Islamic FinTech. On the other hand, in a study conducted by The Economic Intelligence Unit Limited [30], Islamic FinTech has the potential to advance financial inclusion through financial services to the unbanked and moral and socially conscious investment opportunities. Further, according to [31], FinTech revolutionizes the banking industry by increasing access to Islamic and financial services and improving operational effectiveness.

One of the innovations accepted and supported by Islam, as long as it does not contradict the Sharia, is financial technology or FinTech [32]. According to [23], The development of Sharia-compliant financial technology has increased the convenience in obtaining cash needs more quicker and simple. In [33] explained in his research that Sharia FinTech has increased in patronage in Indonesia although it is still inferior to conventional FinTech. A “contract” or initial agreement between an investor and a borrower is the main difference between traditional and Islamic FinTech. [34] explained that with the development of FinTech, its application needs to be based on *fiqh muamalah* (Sharia principles that govern human economic interaction), which prohibit *maysir* (game of chance), *gharar* (business that is either full of uncertainties or fraudulent), and *riba* (interest-based transactions). This activity employs a technological innovation, yet, it remains essential to comply with Islamic legal standards.

Sharia FinTech services are online lending and borrowing products that use modifications of Sharia principles. Regarding funding in Sharia FinTech, there is no determination of interest from the lender because everything is decided through a contract that has been agreed from the beginning. No matter how much it costs, certain advantages will be obtained without any losses [35]. The increasing compliance with *halal* lifestyles in the fundamental and financial sectors is driving the growth of Islamic finance and economy globally, surpassing the financial industry’s average growth. This potential is related to the role of Indonesia’s Sharia *mu’amalah* in encouraging market growth and expanding economic access. In addition, the existence of Islamic financial technology or FinTech as a reliable financial institution is expected to be able to help to solve the problems often experienced by micro, small, and medium enterprises (MSMEs) in Indonesia [36].

In the research conducted by [37], an ethnographic approach that studies the culture and behavior of the community, commonly called citizens, with direct observation, has been developed into a Netnographical method. On the other hand, netnography uses the internet to study the culture and behavior of subjects commonly referred to as netizens. Kozinets [38] explained in his research that the definition of netnography is a way to learn about netizens by tracking their social media activities using technology.

Ciolan and Manasia [39] also argues that one of the many benefits of using netnography as a research approach is that it is non-intrusive, which is very useful when conducting a research on a smaller area (microcosm) of the Internet or in as much detail as possible. One of the techniques for observing, analyzing, and interpreting a social group is the Netnographical approach [40]. Padricelli *et al.* [41] argued that in his study, researchers are encouraged to be fully involved with the research subject, either directly or

indirectly, using a Netnographical approach. Researchers normally rely on computers and internet links to collect data around the world.

This technique is distinguished from others based on its emphasis on online social interactions and its consideration of cultural objects, contexts, and expressions of meaning embedded in online communication. This approach views online interactions as a reflection of culture. It pays special attention to several factors, including the language used, the features of the forum, the type of interaction, and the historical context. Researchers and marketers who want to learn more about consumer behavior and online social phenomena will find Netnography a beneficial tool for understanding and interpreting the cultural dynamics of online communities [37], [42].

Research or analytical studies of data processing related to user comments on Sharia FinTech applications have not been carried out. In addition, it is hoped that application developers can use this research as a reference to improve the functionality and services offered by this Sharia FinTech application.

3. RESEARCH METHOD

The purpose of this study is to review several applications related to Sharia FinTech that have received permission from the OJK by the users of the application through comments (both positive and negative) on the application page. Kozinets coined Netnography to denote an ethnographic approach to studying online or virtual communities. This research method is based on conversations, interactions, communication, and human relationships conducted through various social media platforms [43]. Netnography is also used to identify industry trends and consumer preferences, Help brands develop and improve product quality, and build their marketing strategies [44].

Netnography is generated from a combination of the terms, “network” and “ethnography”, where “network” refers to a form of communication mediated by technologies or through the medium of the internet. On the other hand, “ethnography” refers to the study of the beliefs, social interactions, and behaviors of a group of people, which involves participation and observation over a period to collect data [45]. Netnography studies the customs, behaviors, and cultures that characterize society in the digital realm. Social media analysis was also included in this study [46].

Netnography is another term for an ethnographical study that relies on online data on cultures and communities. Netnography can provide writers insight into natural behaviors typically encountered in online communities [44]. Ethnography and Netnography are therefore anthropological research methods. Both methods emphasize the importance of the researcher’s involvement with the subject (the person being studied) to understand a particular social or cultural environment [40].

This study considers the recommendations and policy implications for the long-term growth of the Islamic FinTech sector. To provide a conducive atmosphere for the development of Islamic FinTech, regulators, the business world, and the Islamic financial institutions must collaborate. Therefore, lousy FinTech can continue strengthening the Islamic finance industry and encourage financial inclusivity [23]. Research on Netnography has grown significantly in the last ten years. In examining the relationship between citizens and institutions, society and government, and community leaders and the wider community (the general public), researchers can find this approach very beneficial [47]. The research therefore followed the steps in Figure 1 [50].

In Table 1, the topic of reviews or online reviews posted in the user comments section of the Google Play store app was used. As stated in the data types and data collection sections, this study is limited in scope due to the amount of data related to online evaluation. The applications listed below are the data sources used in this study.

Table 2 demonstrates that this study collected all the comments columns in the online Google Play Store about reviews about the Islamic microfinance mobile applications. This researcher uses the ethnographic research method, which is similar to ethnography but in the virtual realm of the internet. This netnography is a research method that helped us to understand society and culture formed from human interaction through the internet. It seeks to reveal the cultural vision of society, i.e. social groups built from human interaction in the virtual world of the internet [40]. As it was implied earlier, Netnography is an online anthropological research approach that utilizes publicly accessible data so that anyone can freely submit material on social media [48].

In this study, the researchers looked for Sharia FinTech applications that had passed the registration and licensing stages of the OJK. Then, a FinTech application labeled “Sharia” was determined, and reviews related to its patrons’ use of Sharia FinTech applications and updates provided by developers to the application was studied. The researchers looked-out for reviews on the Google Play store. On each application page whose last update was carried out not earlier than June 2023, 129 reviews were found. The reviews that were done starting from July 2023 to December 2023 of the total Sharia FinTech applications that have received OJK permission were seven applications. However, only 5 of them were included in these

criteria. The researchers evaluated the reviews written in the comment column of the application and grouped them into various aspects to facilitate understanding.

Using technology and computer programs to help banking and financial services is known as FinTech. From 1866 to 1967, communication technology gave rise to FinTech. From 1967 to 2008, FinTech facilities such as ATMs and mobile banking services multiplied [49]. For example, the existence of FinTech can make payment methods easier because the industry is always trying to innovate and create new solutions that benefit consumers and businesses [50]. Studying people's behaviors and experiences in online communities is made possible by Netnography, which offers in-depth information for disciplines such as marketing, consumer research, and cultural studies [40], [51].

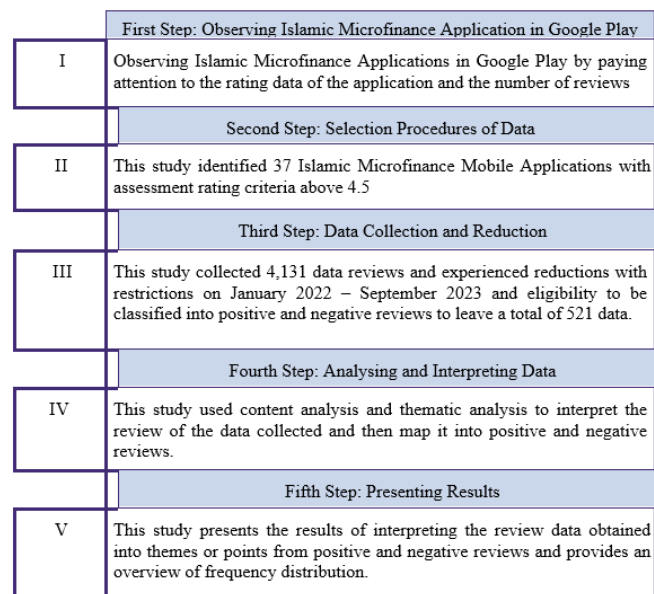


Figure 1. Steps for data analysis with the Netnographical method (adopted and modified from [50])

Table 1. Sharia FinTech institution applications review data

Types of reviews	Number reviews	Percentage (%)
Positive reviews	474	11.47
Negative reviews	47	1.14
Not in category	3,610	87.39
Total collected data	4,131	100

Source: processed by authors

Table 2. Application data, research reviewer from Google Play store

No	Application	Rating	Reviews
1	Amana. Id	3.4	88
2	Natural	4.3	18
3	Ethis mobile	3.1	9
4	Duha Sharia	3.7	10
5	Qazwa	5.0	4
Total reviews			129

Source: processed by authors

4. RESULTS AND DISCUSSION

4.1. Research results

This study encodes reviews uploaded by users of the Google Play store application, such as 1. Ammana. Id 2. Natural 3. Ethis Mobile 4. Sharia Dhuha 5. Qazwa. Using the Google Play store platform to collect reviews from July 2023 to December 2023 allowed the researchers to obtain a total of 129 reviews. Reviews come in many forms; some of them were positive while others were negative.

It begins by presenting positive reviews in the form of tables. The positive reviews displayed data on comments relating to what users of the Sharia FinTech application feel and the experience gained from using the application. In other words, the content found is in line with what the services providers of the application

have indicated. Thus, it can be seen from the comments uploaded by users that are then filtered and grouped into several categories according to specific keywords.

Table 3 summarizes the positive reviews of Sharia FinTech institution applications, collected from user feedback on digital platforms. Using a Netnographic approach, this study highlights key aspects of user satisfaction: 30.60% praised the friendly and trustworthy service, 14.30% appreciated the ease of use and Sharia compliance, and 55.10% expressed overall happiness after using the applications. These findings underscore the positive reception and trust built by Sharia FinTech platforms within the digital finance space.

The highest percentage of those review codes expresses the happiness of users after using Sharia FinTech applications. The words that are often used include: “very good, excellent, the best, satisfying, unbelievable, dude..., trustworthy, and praise be to God. Additionally, a review by Mahatma Kusuma Wardhana on September 3, 2023, highlights that the app is easy to use, Sharia-compliant, and beneficial for its users, exemplified by the phrase an easy-to-use application, hopefully trustworthy”

Consumer happiness during the purchase or use of a product is seen as the primary condition for brand acceptance. Customer dissatisfaction stems from the expectation that they are not superior and are not proportional to the performance the marketer provides. These things can lead to dissatisfaction, affecting attitudes and plans to buy or utilize the item.

In this study, negative reviews are also coded through obstacles obtained by users of Sharia FinTech applications in applying for funding and other problems, as stated in the table. It starts from the many errors in the application system, payment delays that still continue to occur, interest, poor service, lack of offers, and the difficulty in creating an account on the application caused by a problematic OTP code. The highest percentage of negative reviews was on “Late payments that still occur a lot and interest” and this scored 37.5%. On the other hand, “Poor service and lack of supply” scored 5.0%. The “Problems that do not fall into the other four categories” scored a percentage of 15.0. Furthermore, the “Difficulty in creating an account on the application caused by a problematic OTP code” also scored a percentage of 20.0. The last is the “Many errors on the submission page and the addition of data and accounts that are opened against the will of the users”, and this scored a percentage of 22.5.

Table 4 presents the negative reviews gathered from users of Sharia FinTech institution applications. The data was collected from user feedback in online platforms, utilizing a Netnographic approach to study digital interactions. The most frequent complaint (37.50%) was related to payment delays. Other issues included submission page errors and unwanted account additions (22.50%), difficulties with OTP codes and login problems (20.00%), and poor service or lack of offers (5.00%). These insights provide a critical view of the challenges users face while engaging with Sharia FinTech platforms.

Table 3. Positive reviews of Sharia FinTech institution applications

No	Points of review	Percentage (%)
1	The joy of application users for good, friendly, and trustworthy service	30.60
2	The application is easy to use, sharia-compliant, and also beneficial for its users	14.30
3	Expressions of happiness of users after using Sharia FinTech applications	55.10

Table 4. Negative reviews of Sharia FinTech institution applications

No	Points of review	Percentage (%)
1	Many errors on the submission page and the addition of data and accounts that are opened against the user's will	22.50
2	Payment delays that still occur until there are some interest	37.50
3	Poor service to lack of offers available on the application	5.00
4	Difficulty in creating an account caused by problematic OTP codes to log-in problems	20.00
5	Others (Bad experience, untrustworthy, illegal loans, data thief applications)	15.00

4.2. Discussion

The results of this study can be a valuable reference for Islamic Microfinance application developers and an evaluation for Islamic microfinance institutions that currently serve their customers through mobile applications. In the Google Play Store application, there is a limited coder of positive and negative reviews represented with stars. This ranges from one to five stars technically known as “ratings” and it is based on the rating of reviews from application users. In the conduct of this research, the existence of the above feature greatly helped in determining reviews within a certain period. Not only from user review ratings but also the content posted in the comment column, whether positive and destructive, still needed to be thoroughly examined.

Some application users still post positive or five-star ratings, but the content of the comments is negative or not in accordance with the rating that has been given. Thus, this research is intended to assist

managers in evaluating the problems contained in Sharia FinTech applications so that, in the future, Sharia FinTech applications can make an even better contribution to society in terms of finance.

Documents that discuss the consequences of positive and negative feedbacks on humans and systems are known as positive and negative comments. From this paper's point of view, approach behavior is associated with positive feedback, while avoidance behavior is related to negative feedback. In addition, it proposes that productivity could be increased by countering every negative comment by providing five good comments. Positive feedback has the potential to predict emotional and work-related outcomes. It is possible to maintain homeostasis and influence change by using even the negative feedback. Positive feedback has an impact that disrupts stability by magnifying changes in variables. Positive and negative feedback can be leveraged to create an emotional response and inspire the achievement of goals [55]-[57].

In addition to being an essential component in the country's FinTech sector, Sharia FinTech also helps the growth of MSMEs in Indonesia. Sharia FinTech also encourages the availability of Sharia-compliant financing in various regions of Indonesia, most of which are dominated by MSMEs [55]. FinTech is a good innovation in the financial services industry and it increases efficiency by transforming paper money into digital ones [56].

With the emergence of the innovative facility of Sharia FinTech, the FinTech services industry in Indonesia has attracted participants in commercial and financial transactions that follow Sharia rules. A *fatwa* was issued by the National Sharia Council of the Indonesian Ulema Council (DSN-MUI), i.e., no. 117/DSN-MUI/II/2018. This *fatwa*, which gave a boost to the FinTech industry in the country, was meant to guide the information technology-driven financial services that comply with Sharia principles. The industry was given another impetus with the establishment of Indonesia's Sharia FinTech group dubbed, "Sharia FinTech Association (AFSI)." Since then, the industry has received attention from the Indonesian government and the general public. There is the belief in the broader community that the traditional FinTech and the Sharia FinTech have the same characteristics [57].

5. CONCLUSION

This study explored a comprehensive analysis of user perceptions of Sharia FinTech applications through online reviews. Our findings provide conclusive evidence that while Sharia FinTech applications are generally well-received, there are significant areas for improvement. 55.10% of users expressed overall happiness with Sharia FinTech applications, indicating a generally positive reception. The highest percentage of negative reviews (37.50%) was related to payment delays and interest issues, highlighting a critical area for improvement. Users appreciated the ease of use and Sharia compliance of these applications (14.30%), which aligns with previous studies on Islamic FinTech adoption. These results support previous theories about the potential of Islamic FinTech to promote financial inclusion and provide Sharia-compliant services. However, they also contradict expectations of seamless service delivery, given the significant proportion of complaints about technical issues and payment delays. This study explored user reviews on the Google Play store with a limited timeframe (July 2023 to December 2023). However, further and in-depth studies may be needed to confirm its findings, especially regarding long-term user satisfaction and the evolution of Sharia FinTech services. The focus on app store reviews may not capture the full spectrum of user experiences, potentially impacting the comprehensiveness of our results. Our study demonstrates that Sharia FinTech applications are more resilient in terms of user trust and Sharia compliance than in technical performance. Future studies may explore the technical challenges faced by Sharia FinTech providers with feasible ways of improving system reliability and payment processing. In conclusion, recent observations suggest that the Sharia FinTech industry in Indonesia is growing but faces significant challenges. Our findings provide evidence that user satisfaction is associated with ease of use and Sharia compliance, not due to superior technical performance. This research has moved the body of scientific knowledge forward by providing a detailed analysis of user perceptions, which can guide both regulators and Sharia FinTech providers in improving their services and addressing key user concerns.

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AUTHOR CONTRIBUTIONS STATEMENT

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C : Conceptualization

M : Methodology

So : Software

Va : Validation

Fo : Formal analysis

I : Investigation

R : Resources

D : Data Curation

O : Writing - Original Draft

E : Writing - Review & Editing

Vi : Visualization

Su : Supervision

P : Project administration

Fu : Funding acquisition

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest. There are no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

DATA AVAILABILITY

This study did not generate or analyze any new datasets. Therefore, data availability is not applicable to this research.

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