BELGI
Advances in Decision Science for Islamic Business

RESEARCH ARTICLE
Published Online: January 5, 2026
https://doi.org/10.31893/BELGI.2025117
BELGI: Journal of Islamic Business and Decision Sciences VOL 1 (1) 2026. pp. 23-45

Digital waqf in community sustainability: An Expectation-Confirmation Technology Model (ECTM) approach

Aishath Muneeza[1], Dalila Daud[2], Ade Falah[3]*

[1]*School of Graduate & Professional Studies, INCEIF University, Malaysia, email: muneeza@inceif.edu.my*
[2]*Faculty of Accountancy, Universiti Teknologi MARA (UiTM), Malaysia, email: daliladaud@uitm.edu.my*
[3]*STIT Fatahillah, Indonesia, email: adefalah180@stitfatahillah.ac.id*
**Corresponding author: adefalah180@stitfatahillah.ac.id*

Abstract

Purpose – This study aims to examine the role of digital waqf platforms in promoting community sustainability by applying the Expectation-Confirmation Technology Model (ECTM), with a focus on understanding the factors influencing users' continued intention to donate. This research addresses a critical need to understand user behavior in the context of religious-based digital philanthropy.

Design/Methodology/Approach – A quantitative research design was employed, utilizing a structured online survey to collect data from 798 respondents across major regions in Indonesia. The study integrates key constructs of the ECTM, including satisfaction, trust, and continued intention. Data analysis was performed using partial least squares structural equation modeling (PLS-SEM) to test the hypothesized relationships.

Findings – The results indicate that confirmation has the strongest positive effect on both user satisfaction and trust, which in turn significantly influence the intention to continue donating. System quality and information quality indirectly affect continued intention through the mediating roles of satisfaction and trust.

Originality/Value – This research extends the application of the ECTM to the domain of digital waqf, offering novel insights into the behavioral mechanisms driving donor engagement within religious digital finance. It highlights the critical role of trust and satisfaction as mediators in sustaining user participation.

Research Limitations/Implications – The findings are based on data from Indonesia, which may limit generalizability to other cultural or religious contexts. Future studies could explore cross-cultural comparisons.

Practical Implications – The study provides actionable recommendations for digital waqf platform developers, waqf institutions, and policymakers to enhance platform quality, transparency, and user experience, thereby supporting broader financial inclusion and community development aligned with the Sustainable Development Goals (SDGs).

Keywords – Digital Waqf, Expectation-Confirmation Technology Model (ECTM), Satisfaction, Trust, Sustainability

1. Introduction

The emergence of digital waqf has revolutionized Islamic philanthropy, offering a modern and innovative approach to addressing socio-economic and environmental challenges (Kasmon et al., 2024). This transformation is particularly significant for community sustainability, as digital waqf enhances financial inclusion, improves transparency, and promotes long-term

Received: 2025-09-02 — Revised: 2025-09-26, 2025-10-13 — Accepted: 2025-10-13
e-ISSN: xxxx-xxxx

sustainability (Fajri, 2024). By its inherent design, waqf aims to provide perpetual benefits to communities (Bonang et al., 2024). The three-pillar framework of sustainability, comprising social, economic, and environmental dimensions, provides a comprehensive lens for evaluating the impact of digital waqf (Helvacıoğlu et al., 2021).

Recent studies have delved into the behavioral intentions behind digital waqf contributions, revealing key factors that influence donor decisions. Alimusa et al. (2024) explored the intention of Indonesian Muslim youth to donate online cash waqf for micro-enterprise financing by integrating the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM). Their findings highlight religiosity, awareness, and perceived behavioral control as significant predictors of donation behavior, with religiosity playing a pivotal role in shaping attitudes and intentions. In contrast, Widiastuti et al. (2025) investigated the Muslim millennial generation in Indonesia using the Decomposed Theory of Planned Behavior (DTPB) and TAM. They found that attitudes, subjective norms, behavioral control, technological ease of use, and facility availability significantly influence digital waqf intentions. Interestingly, religiosity did not directly affect intentions, suggesting that millennials' adoption of digital waqf is primarily driven by social and technological factors.

Other frameworks have also been applied to study digital waqf adoption. Bonang et al. (2024) utilized the Unified Theory of Acceptance and Use of Technology (UTAUT), while Kasmon et al. (2024) incorporated the Diffusion of Innovation Theory. Megat et al. (2024) combined the Electronic Data Interchange (EDI) model with the Triple Bottom Line (TBL) theory to assess sustainability impacts. Qualitative research has employed ecological theory and Ibn Khaldun's thought (Nofianti et al., 2024), phenomenological approaches (Maulina et al., 2024), and literature reviews (Al-Daihani et al., 2025).

Despite these advancements, there remains a need for further research on how digital waqf aligns with sustainability principles. Indonesia represents an especially important context for such an investigation. As the world's largest Muslim-majority country with more than 230 million Muslims, Indonesia has enormous potential for mobilizing waqf-based resources to support socio-economic development and sustainability. The rapid growth of Islamic fintech and digital philanthropy in Indonesia also makes it a pioneering market where lessons learned can inform broader applications in other Muslim-majority and developing countries.

However, despite this potential, systematic empirical studies on how digital waqf platforms influence user behavior remain scarce. Addressing this gap in the Indonesian context not only strengthens theoretical understanding but also provides actionable insights for policymakers, waqf institutions, and platform developers. Specifically, studies should focus on measuring its system quality, information quality, confirmation impact through the Expectation-Confirmation Technology Model (ECTM). Limited research exists on how those variables, mediated by satisfaction and trust, contribute to the continued intention to donate from an ECTM perspective, highlighting gaps that warrant exploration.

This study aims to investigate the role of digital waqf in promoting community sustainability through a quantitative approach that evaluates its economic and social impacts. The ECTM will be applied to understand user acceptance and satisfaction with digital waqf platforms by examining system quality, information quality, and trust (Al-Mamary et al., 2023; Nuh et al., 2025). Therefore, this study explicitly seeks to bridge the identified research gap by examining how system quality, information quality, and confirmation, analyzed through the Expectation-Confirmation Technology Model (ECTM), shape user satisfaction and trust, thereby influencing their continued intention to donate. By linking these behavioral constructs with the broader challenges of financial inclusion and community sustainability, the study directly addresses the need for empirical evidence on how digital waqf can be optimized to achieve a long-term social, economic, and environmental impact.

2. Literature review

2.1. The expectation-confirmation technology model (ECTM)

The Expectation-Confirmation Technology Model (ECTM) expands upon the foundational principles of the Expectation-Confirmation Model (ECM), originally introduced by Bhattacherjee in 2001 (Alshammari & Alshammari, 2024). ECTM builds on ECM by incorporating additional dimensions such as system quality, information quality, and confirmation, providing a more comprehensive framework for understanding user satisfaction and trust in digital platforms.

Traditionally, ECM (and its roots in the Expectation Disconfirmation Theory) places perceived usefulness as a central post-adoption belief influencing satisfaction and continued intention. However, recent research in digital behavior, including the Expectation-Confirmation Technology Model (ECTM) proposed by Nuh et al. (2025) has adapted and extended ECM by incorporating system quality and information quality as significant factors influencing satisfaction and continued use, sometimes alongside or in place of perceived usefulness. According to Luu et al. (2024), user satisfaction is shaped by the alignment between expectations and perceived confirmation, alongside system and information quality. The model posits that when users' expectations are met or exceeded, satisfaction increases, leading to sustained engagement with the technology. This underscores the importance of aligning system design with user expectations to enhance long-term adoption and trust.

2.2. Continued intention to donate waqf and environmental sustainability

Environmental sustainability refers to the responsible use of resources to meet present needs without compromising the ability of future generations to meet their own (Ramírez-Márquez et al., 2024). It encompasses the preservation of ecosystems, pollution reduction, and the promotion of sustainable development practices (Qamruzzaman et al., 2024). Within the context of waqf donations, environmental sustainability is an ethical consideration that encourages contributions to projects with positive environmental impacts (Huda et al., 2025).

The continued intention to donate waqf reflects individuals' sustained willingness to contribute over time (Bonang et al., 2024; Huda et al., 2025). Various factors influence this intention, including personal values, social norms, and perceived benefits (Alimusa et al., 2024). Key antecedents of environmental sustainability and waqf donation intention include attitude, subjective norms, trust, environmental education, and collaboration (Aldosari, 2025). Additionally, social media, green values, and environmental responsibility have been identified as significant drivers of engagement (Nazish et al., 2024).

Studies indicate that donors are more likely to continue contributing when they perceive their donations as having a tangible impact (Asyari et al., 2024). Religiosity also plays a critical role in shaping attitudes and intentions toward waqf donations (Bouteraa et al., 2024) highlighting the intersection between faith-based motivations and environmental stewardship.

2.3. System quality and information quality and their impact on satisfaction in islamic finance platforms.

The success of information systems is often evaluated using the three IT quality dimensions proposed by DeLone and McLean: system quality, information quality, and service quality (Ryu & Ko, 2020). System quality refers to the technical attributes of an information system, including performance, efficiency, usability, and reliability (Abed & Alkadi, 2024b). Information quality, on the other hand, pertains to the value and usefulness of the system's content, focusing on attributes such as accuracy, completeness, timeliness, and relevance (Fu et al., 2024).

In the context of Islamic finance platforms, including waqf, zakat, and donation systems, system and information quality play a crucial role in determining user satisfaction (Al-Daihani et al., 2024). System quality includes factors such as processing efficiency, usability, and professional support (Susanto et al., 2024). A higher perception of system quality enhances user satisfaction, improving overall experience and fostering long-term engagement (Lutfi et al., 2022). Similarly, research on mobile banking indicates that system quality significantly influences customer satisfaction (Luu et al., 2024).

Empirical evidence supports the importance of these dimensions. Structural equation modeling studies suggest that information trust, accuracy, and website design positively influence customer satisfaction in digital financial services (Yoo et al., 2023). Additionally, research on the adoption of Buy Now Pay Later (BNPL) services among Generation Z in Saudi Arabia confirms that system quality, service quality, and information quality significantly impact user satisfaction (Abed & Alkadi, 2024b). Similar findings highlight the role of these dimensions in social media engagement (Mater et al., 2024).

Information quality is particularly vital in fintech applications, ensuring that users receive accurate, reliable, and relevant information (Abd Aziz et al., 2024). High-quality information enhances user trust and engagement, leading to better overall satisfaction in digital financial platforms (Sinulingga et al., 2024). Studies further demonstrate that system and information quality directly influence system usefulness and user satisfaction (Alsulami et al., 2024). The IS Success Model confirms that the quality of system, service, and information is a strong predictor of user satisfaction (Abed & Alkadi, 2024a). Conversely, negative experiences related to these factors are major inhibitors of satisfaction in mobile financial platforms (Yi et al., 2025).

The integration of system quality and information quality is essential for enhancing user satisfaction in Islamic finance platforms (Althawadi & Alastal, 2024). These factors create a synergistic effect that improves user experience and encourages continued usage. By focusing on these dimensions, Islamic finance platforms can optimize their systems to foster long-term engagement and trust. Based on these discussions, this study proposes:

H_1: System quality influences satisfaction.

H_2: Information quality influences satisfaction.

2.4. System quality and information quality and their impact on trust in islamic finance platforms.

Previous research has demonstrated a significant positive relationship between system quality, information quality, and trust in financial platforms (Rouf et al., 2024). Specifically, studies indicate that both system and information quality play a crucial role in enhancing trust in donation-based crowdfunding, which, in turn, influences donation intention in Malaysia (Kamarudin et al., 2024). Similarly, Al-Qudah et al. (2024) found that trust in financial platforms is significantly impacted by system and information quality, reinforcing their importance in digital financial services.

Further supporting these findings, Van Deventer (2024) reported that system quality directly affects trust, with statistical evidence showing a strong relationship. The study also highlighted the mediating role of mobile banking trust in linking information quality and system quality to overall trust. Similarly, Yu and Liu (2024) confirmed that platform-related factors, including system quality, information quality, and service quality, significantly influence trust. Moreover, Li and Xue (2021) demonstrated that service and information quality positively affect citizens' post-use trust in e-government platforms.

However, some studies present conflicting findings. Ryu and Ko (2020) observed that while information quality positively affects trust, system quality does not. Their research also suggested that the impact of information quality on continued intention is significantly

mediated by trust, whereas system quality had no significant mediation effect. Likewise, Karyani et al. (2024) found that information system quality had a direct yet insignificant effect on both trust and intention. Based on these discussions, this study proposes:

H_3: System quality influences trust

H_4: Information quality influences trust.

2.5. Confirmation and its impact on satisfaction and trust in Islamic finance platforms.

Several studies have established that confirmation plays a crucial role in influencing satisfaction. Tessema and Cavus (2024) found that confirmation directly enhances satisfaction, which, in turn, strongly mediates continued intention. Similarly, Bhatnagr et al. (2024) demonstrated that confirmation significantly improves customer experiences, particularly in digital channels, and that satisfaction mediates the relationship between confirmation and continued intention. Additionally, Qatawneh et al. (2024) identified significant links between confirmation, perceived usefulness, satisfaction, and continued intention to use mobile money services.

Hameed and Sumari (2024) further reported that confirmation has a direct impact on satisfaction and indirectly influences the continued use of mobile learning platforms, with satisfaction acting as a mediator. In the same vein, Pasaribu and Aruan (2024) found that confirmation, along with perceived enjoyment and promotional factors, significantly affects satisfaction and the intention to continue using food delivery apps.

Despite these consistent findings, some studies present contrasting perspectives. Althinayyan and Alojail (2024) found no significant relationship between confirmation and satisfaction, suggesting that other factors might moderate this relationship. Conversely, Foroughi et al. (2024) demonstrated that confirmation influences users' continued engagement with e-commerce chatbots, with satisfaction playing a mediating role. While some studies propose that confirmation may also impact trust in digital contexts (Apriyansyah et al., 2024; Luo et al., 2024; Zhang et al., 2024), the predominant view in existing research supports a direct link between confirmation and satisfaction. Based on these discussions, this study proposes:

H_5: Confirmation influences satisfaction.

H_6: Confirmation influences trust.

2.6. Satisfaction and trust in Islamic finance platforms.

In the context of technology adoption, user satisfaction often precedes trust in a digital platform (Luu et al., 2024). Research suggests that higher satisfaction significantly enhances trust, reinforcing the idea that a positive user experience fosters confidence in financial platforms (Fellicia et al., 2024). Similarly, Ebert and Winzer (2025) found that increased customer satisfaction leads to greater trust in mobile service providers.

Several studies support this relationship. For instance, trust has been identified as a key determinant of satisfaction and the intention to recommend mobile wallet services (Lacap & Cruz-Espanol, 2024). Additionally, research on consumer behavior indicates that satisfaction positively influences trust, highlighting their interdependence (Ghosh & Dey, 2024). Findings from user experience evaluations in digital review platforms further confirm that satisfaction has a direct and positive effect on trust (Martínez-Navalón et al., 2021). Based on these discussions, this study proposes:

H_7: Satisfaction influences trust.

2.7. Satisfaction and trust toward continued intention to donate waqf in Islamic finance platforms.

Empirical studies indicate that various factors, including attitude, subjective norms, product knowledge, and trust, influence Indonesian Muslims' intention to donate to green waqf. However, Islamic religiosity has been found to have a negative but insignificant effect on donation intention (Huda et al., 2025). Trust plays a crucial role in e-philanthropy, with system quality being a key determinant in building trust in digital donation platforms (Sukmana, 2024). Additionally, trust is positively influenced by both system and information quality, which in turn significantly impact the intention to continue using FinTech services (Al-Qudah et al., 2024).

Customer satisfaction also plays a mediating role in the relationship between system/service quality and the continued intention to use Islamic banking FinTech applications (Abed & Alkadi, 2024a). Research further suggests that platform-related factors, including system quality, information quality, and service quality, affect the intention to reuse digital platforms, with trust serving as a crucial mediator (Yu & Liu, 2024). In Malaysia, elements such as effort expectancy, network externalities, and satisfaction have been shown to positively influence merchants' continued intention to use e-wallet systems (Tan et al., 2024). Similarly, user engagement with e-commerce chatbots is strongly linked to satisfaction (Foroughi et al., 2024).

Beyond the realm of FinTech, studies suggest that system usage contributes to platform sustainability, with satisfaction mediating users' decision-making processes (Lutfi et al., 2022). Furthermore, confirmation significantly impacts public satisfaction and trust in e-government services, which in turn drive sustainable governance intentions (Luo et al., 2024). The role of satisfaction and trust extends to broader digital ecosystems, where relationship quality, including these two factors, positively influences sustainable behavioral intentions (Rahardja et al., 2021). Additionally, green trust and perceptions of information usefulness have been found to mediate the relationship between social media marketing and eco-friendly purchase intentions (Wu & Long, 2024). Based on these discussions, this study proposes:

H_8: Satisfaction influences continued intention to donate waqf

H_9: Trust influences continued intention to donate waqf.

2.8. The mediating role of satisfaction and trust in the continued intention to donate waqf in Islamic finance platforms.

Previous research highlights that confirmation has a direct and significant impact on continued intention, with satisfaction serving as a mediator (Tessema & Cavus, 2024). For example, in mobile financial services, confirmation has been shown to influence perceived usefulness, which in turn affects continued intention, with satisfaction playing a mediating role (Qatawneh et al., 2024). Similarly, in digital commerce, confirmation, system quality, and information quality have been found to enhance satisfaction, which subsequently mediates their effects on users' continued intention to use food delivery apps (Pasaribu & Aruan, 2024).

The same pattern has been observed in e-commerce chatbot adoption, where confirmation impacts continued use, mediated by satisfaction (Foroughi et al., 2024). Given these findings, it is reasonable to expect that system quality, information quality, and confirmation will similarly influence the continued intention to donate waqf in Islamic finance platforms, with satisfaction acting as a mediator. Based on these discussions, this study proposes the model presented in Figure 1:

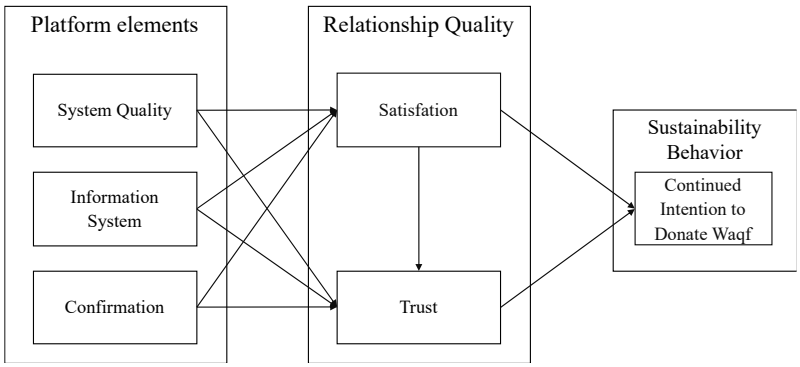
H_{10}: System quality influences continued intention to donate waqf, mediated by satisfaction.

H_{11}: Information quality influences continued intention to donate waqf, mediated by satisfaction.

H_{12}: Confirmation influences continued intention to donate waqf, mediated by satisfaction.

H_{13}: System quality influences continued intention to donate waqf, mediated by trust.

H_{14}: Information quality influences continued intention to donate waqf, mediated by trust.
H_{15}: Confirmation influences continued intention to donate waqf, mediated by trust.



Source: Author's own
Figure 1. Conceptual framework

3. Methodology

3.1. Sample and procedure

This study employed partial least squares structural equation modeling (PLS-SEM) using the SmartPLS software for data analysis. PLS-SEM was chosen due to its capability to develop existing theories and manage complex models, enabling the simultaneous analysis of measurement and structural models. This approach provides precise estimations of construct reliability and validity (Hair et al., 2011). The study variables were measured using validated scales adapted from previous research, ensuring their relevance to the continuous use of AI-driven Islamic finance platforms.

The constructs, including system quality, information quality, confirmation, satisfaction, trust, and continued intention to donate waqf, were assessed using a 6-point Likert scale (see Table 1). A stratified random sampling method was applied to ensure a representative sample of users from these digital platforms across major cities in Indonesia, specifically the Greater Jakarta area (Jabodetabek). Indonesia was selected as the sampling context due to its position as the world's largest Muslim-majority nation, where digital waqf platforms are expanding rapidly in line with broader trends in Islamic fintech and philanthropy. Sampling respondents from urban and semi-urban regions such as Jabodetabek and Java ensures the inclusion of users with direct exposure to digital financial services. This enhances the validity of the study in capturing the behavioral patterns of active and potential digital waqf donors, making the findings both contextually relevant and practically significant for policy and practice.

Structured online surveys were distributed via WhatsApp, social media, and volunteer networks to maximize response rates. To ensure the relevance of responses, the questionnaire included filter questions at the beginning, asking whether respondents had prior experience using digital waqf platforms or intended to use them in the near future. Only respondents who answered affirmatively were directed to complete the full survey, while others were screened out. Following Risher and Hair's (2017) guidelines for PLS-SEM, which recommend a minimum sample size of 280 respondents for models with 28 measurement items, this study successfully collected 798 valid responses, ensuring adequate statistical power for analysis.

3.2. Descriptive statistics for demographics

Respondents were included if they met the following criteria: (1) being Muslim, as waqf is an Islamic philanthropic instrument; (2) being at least 18 years old to ensure legal eligibility for financial transactions; and (3) having either prior experience with digital waqf platforms or an expressed intention to engage in digital waqf in the future. These criteria ensured that the

collected data reflected the perspectives of actual and potential donors who are relevant to the study's objectives. A total of 798 responses were collected from Jakarta and its surrounding cities, including Bogor, Depok, Bekasi, and Tangerang, as well as other provinces (West Java, Central Java, and East Java). The sample consisted of 48.99% male respondents (n = 391) and 51.01% female respondents (n = 407), indicating a slightly higher proportion of female participants in the study.

In terms of education, the majority of respondents had completed junior high school, accounting for 57.27% (n = 457). This was followed by 35.96% (n = 287) who had completed senior high school, 2.76% (n = 22) with a diploma or undergraduate degree, 2.63% (n = 21) with only elementary education, and 1.38% (n = 11) holding a master's or doctoral degree. Regarding occupational background, the largest group of respondents (30.95%, n = 249) were employed in the food and beverage industry. This was followed by 27.81% (n = 222) in the creative industries, 13.41% (n = 107) in the service industry, 9.02% (n = 72) in agribusiness, and 18.80% (n = 150) in other sectors.

In terms of geographic origin, the majority of respondents were from the Greater Jakarta area (Jabodetabek), representing 45.61% (n = 364) of the sample. This was followed by respondents from West Java (28.20%, n = 225), Central Java (16.79%, n = 134), and East Java (9.40%, n = 75). These classifications reflect the regional clusters utilized in the study.

4. Results

4.1. Evaluation of the measurement model (outer model)

Table 1 illustrates that all constructs demonstrated strong internal consistency, with factor loadings exceeding 0.805 across items. Composite reliability (CR) and Cronbach's alpha values surpassed the 0.7 threshold, confirming robust reliability. For instance, satisfaction items ranged from 0.864 to 0.881, while system quality items ranged from 0.805 to 0.859. Convergent validity was supported by average variance extracted (AVE) values exceeding 0.5 for all constructs, as indicated by high factor loadings (>0.698).

Table 1. Validity and reliability

Items	Indicators	Outer loadings	Source
System quality α = 0.892; CR = 0.920; AVE = 0.698			
SQ1	Fast access	0.805	(C.-G. Kim & Yang, 2024)
SQ2	Security	0.859	
SQ3	Ease of use	0.823	
SQ4	Information availability	0.848	
SQ5	Search efficiency	0.842	
Information Quality α = 0.913; CR = 0.935; AVE = 0.743.			
IFQ1	Ensuring the availability of adequate information.	0.872	(C.-G. Kim & Yang, 2024)
IFQ2	Providing a diverse range of information.	0.874	
IFQ3	Supplying current and timely information.	0.899	
IFQ4	Ensuring the dissemination of reliable information.	0.811	
IFQ5	Offering relevant and beneficial information	0.851	
Confirmation α = 0.901; CR = 0.931; AVE = 0.770			
CON1	Experience Exceeds Expectations	0.885	(Fan & Jiang, 2024)
CON2	Benefits Surpass Expectations	0.876	
CON3	Inspirational Impact	0.879	
CON4	Overall Expectations Confirmed	0.871	
Satisfaction α = 0.921; CR = 0.944; AVE = 0.808			
SAT1	Overall Satisfaction	0.869	(C.-G. Kim & Yang, 2024)
SAT2	Enjoyment	0.864	
SAT3	Service Satisfaction	0.881	
SAT4	Happiness	0.875	

Items	Indicators	Outer loadings	Source
Trust α = 0.917; CR = 0.938; AVE = 0.751.			
TRU1	Truthfulness	0.865	(J. Kim & Yum, 2024)
TRU2	Data security	0.894	
TRU3	Reliability	0.850	
TRU4	Fairness	0.851	
TRU5	Overall trust	0.871	
Continued intention to waqf α = 0.917; CR = 0.937; AVE = 0.750			
INT1	Future use intention	0.861	(Fan & Jiang, 2024; Kang et al., 2024)
INT2	Increased use inclination	0.858	
INT3	Frequency of Use	0.882	
INT4	Prioritization	0.870	
INT5	Recommendation intention	0.857	

Source: Owned by The Authors (2025)

Discriminant validity was confirmed through cross-loadings, which showed that items loaded higher on their respective constructs than others (Table 2). Heterotrait-monotrait (HTMT) ratios, derived from low inter-construct correlations, further suggested distinctiveness between constructs. The structural model fit exhibited acceptable results: SRMR (0.043) and d_ULS/d_G (0.744/0.898) met the thresholds, while NFI (0.888) approached the 0.9 benchmark. The chi-square value (2333.451) also supported model adequacy. Overall, the measurement model demonstrated strong reliability, convergent validity, and discriminant validity, with an acceptable structural fit, validating its robustness for analyzing continued waqf donation intentions.

Table 2. Discriminant validity

	CON	INFO	INT	SAT	SQ	TRU
Confirmation	0.878					
Information quality	0.823	0.862				
Intention to Donate	0.808	0.769	0.866			
Satisfaction	0.844	0.771	0.841	0.872		
System quality	0.786	0.808	0.774	0.752	0.836	
Trust	0.863	0.802	0.835	0.857	0.775	0.866

Source: Owned by The Authors (2025)

4.2. Structural Model Assessment (Inner Model)

The results presented in Table 3 demonstrate significant relationships among the constructs in the model. System quality (β = 0.168, p = 0.001) and information quality (β = 0.152, p = 0.006) positively influence satisfaction, with confirmation exhibiting the strongest effect (β = 0.587, p < 0.000). While system quality directly affect trust (β = 0.105, p = 0.024), information quality (β = 0.144, p = 0.004), confirmation (β = 0.344, p = 0.000), and satisfaction (β = 0.378, p < 0.000) significantly enhance trust.

Notably, satisfaction (β = 0.474, p < 0.000) has a stronger impact on continued intention to donate waqf than trust (β = 0.428, p < 0.000). These findings highlight satisfaction as the most critical predictor of sustained waqf donation intentions, emphasizing the need for platforms to prioritize experiences and reliable confirmation mechanisms to foster user satisfaction.

Table 3. Path coefficients

	β	T Statistics	P Values
System quality → satisfaction	0.168	3.225	0.001
Information quality → satisfaction	0.152	2.758	0.006
Confirmation → satisfaction	0.587	9.078	0.000
System quality → trust	0.105	2.267	0.024

	β	T Statistics	P Values
Information quality → trust	0.144	2.895	0.004
Confirmation → trust	0.344	5.669	0.000
Satisfaction → trust	0.378	5.372	0.000
Satisfaction → continued intention to donate waqf	0.474	6.829	0.000
Trust → continued intention to donate waqf	0.428	5.800	0.000

Source: Owned by The Authors (2025)

Table 4 presents the specific indirect effects of various constructs on the continued intention to donate waqf (INT), mediated by satisfaction (SAT) and trust (TRU). The results reveal several key pathways through which system quality (SQ), information quality (INFO), and confirmation (CON) influence donation intentions. First, the analysis shows that system quality (SQ) indirectly affects continued donation intentions through satisfaction. Specifically, the indirect effect of SQ → SAT → INT is statistically significant ($\beta = 0.080$, $p < 0.01$), indicating that higher perceptions of system quality enhance user satisfaction, which in turn positively influences their intention to continue donating. Similarly, information quality (INFO) also exhibits a significant indirect effect on continued donation intentions through satisfaction ($\beta = 0.072$, $p < 0.01$).

The most pronounced indirect effect is observed for confirmation (CON), which has a strong impact on continued donation intentions through satisfaction ($\beta = 0.278$, $p < 0.001$). In addition to satisfaction, the analysis reveals indirect effects mediated by trust (TRU). For instance, system quality (SQ) indirectly influences continued donation intentions through trust ($\beta = 0.045$, $p = 0.047$), although this effect is weaker compared to its impact through satisfaction.

Information quality (INFO) also demonstrates a significant indirect effect on continued donation intentions through trust ($\beta = 0.061$, $p < 0.01$). High-quality information not only enhances satisfaction but also builds trust, reinforcing the idea that reliable and relevant information is crucial for fostering confidence in digital waqf platforms.

Finally, confirmation (CON) exerts a substantial indirect effect on continued donation intentions through trust ($\beta = 0.147$, $p < 0.001$). Overall, these findings emphasize the mediating roles of satisfaction and trust in driving continued donation intentions. While system quality and information quality primarily influence satisfaction, confirmation plays a dual role by impacting both satisfaction and trust. These insights highlight the need for digital waqf platforms to prioritize transparent and reliable systems, high-quality information, and robust confirmation mechanisms to foster long-term donor engagement and trust.

Table 4. Specific indirect effects

Construct Relationship	β	T Statistics	P Values
SQ → SAT → INT	0.080	2.856	0.004
INFO → SAT → INT	0.072	2.671	0.008
CON → SAT → INT	0.278	5.562	0.000
SQ → TRU → INT	0.045	1.995	0.047
INFO → TRU → INT	0.061	2.609	0.009
CON → TRU → INT	0.147	4.518	0.000

Source: Owned by The Authors (2025)

The analysis of effect sizes (f^2) and Variance Inflation Factors (VIF) reveals critical insights into the relationships among constructs in the model, as well as potential multicollinearity issues (Table 5). Relationships involving confirmation, both with satisfaction ($f^2 = 0.370$) and trust ($f^2 = 0.132$), exhibit the largest effect sizes, underscoring confirmation's pivotal role in shaping user experiences. Satisfaction ($f^2 = 0.203$) and trust ($f^2 = 0.122$) also demonstrate substantial effects on continued intention to donate waqf, reinforcing their importance as mediating factors. While system quality and information quality show smaller

effect sizes on both satisfaction and trust, their contributions, though modest, remain relevant within the model's framework.

Multicollinearity levels, as indicated by VIF values, are generally manageable across most relationships, remaining below the threshold of 5. However, relationships involving trust, both as a predictor and outcome, present higher VIF values, suggesting potential correlations with other variables. Despite these elevated VIF values, the overall model appears robust, with the relationships involving confirmation, satisfaction, and trust demonstrating significant influence on continued intentions to donate through digital waqf platforms. These findings highlight the importance of confirmation, satisfaction, and trust in enhancing user engagement and ensuring the sustainability of digital philanthropy initiatives.

Table 5. Effect size and multicollinearity output

Construct Relationship	f^2	VIF
System quality → satisfaction	0.033	3.317
Information quality → satisfaction	0.022	3.933
Confirmation → satisfaction	0.370	3.570
System quality → trust	0.018	3.425
Information quality → trust	0.028	4.022
Confirmation → trust	0.132	4.892
Satisfaction → trust	0.203	3.835
Satisfaction → continued intention to donate waqf	0.136	5.760
Trust → continued intention to donate waqf	0.122	6.159

Source: Owned by The Authors (2025)

Table 6 presents the Coefficient Determination and Blindfolding Output, providing insights into the predictive accuracy and model fit for each construct in the study. The table reveals that while constructs such as System Quality and Information Quality have high Sum of Squares Observed (SSO) values (3,990.000), their corresponding Sum of Squares Error (SEE) values are also identical, indicating no explanatory power or variance explained by these variables in the current model. In contrast, Confirmation shows a slightly lower SSO value (3,192.000) but still exhibits no explanatory power due to an identical SEE value.

The constructs Satisfaction, Trust, and Intention to Donate Waqf demonstrate significant explanatory power, as evidenced by their substantial reductions in SEE compared to SSO. Specifically, Satisfaction has an R^2 value of 0.739, indicating that 73.9% of the variance in satisfaction is explained by the model. Similarly, Trust achieves an R^2 of 0.817, suggesting that 81.7% of its variance is accounted for by the predictors. Intention to Donate Waqf shows an R^2 of 0.758, reflecting strong explanatory power with 75.8% of the variance explained.

The Adjusted R^2 values for Satisfaction (0.738), Trust (0.816), and Intention to Donate (0.757) further validate the robustness of these relationships, as they adjust for the number of predictors in the model. Additionally, the Q^2 values (0.557 for Satisfaction, 0.608 for Trust, and 0.564 for Intention to Donate) indicate good predictive relevance, confirming that the model can effectively predict these constructs beyond mere explanation. Overall, the results highlight the strong predictive capabilities of the model for Satisfaction, Trust, and Intention to Donate Waqf, while System Quality and Information Quality require further refinement to contribute meaningfully to the explanatory framework.

Table 6. Coefficient determination and blindfolding output

Construct	SSO	SEE	R^2	R^2 Adjusted	Q^2
System quality	3990.000	3990.000			
Information quality	3990.000	3990.000			
Confirmation	3192.000	3192.000			
Satisfaction	3192.000	1415.061	0.739	0.738	0.557
Trust	3990.000	1563.594	0.817	0.816	0.608

Construct	SSO	SEE	R^2	R^2 Adjusted	Q^2
Intention to donate	3990.000	1739.144	0.758	0.757	0.564

Source: Owned by The Authors (2025)

Table 7 provides insights into the predictive accuracy and model performance for various constructs in the study. The table compares the PLS-SEM (Partial Least Squares Structural Equation Modeling) results with a Benchmark dataset across several metrics: Q^2_predict, RMSE (Root Mean Square Error), and MAE (Mean Absolute Error). For constructs such as Satisfaction (SAT), Trust (TRU), and Intention to Donate Waqf (INT), the PLS-SEM approach demonstrates strong predictive capabilities, as evidenced by the Q^2_predict values ranging from 0.480 to 0.620 for Satisfaction, 0.516 to 0.639 for Trust, and 0.483 to 0.555 for Intention to Donate Waqf. These values indicate that the model effectively predicts the variance in these constructs beyond mere explanation.

The RMSE and MAE values further validate the model's precision, showing relatively low errors compared to the Benchmark dataset. For instance, Satisfaction items exhibit RMSE values between 0.601 and 0.690, while MAE ranges from 0.365 to 0.407, suggesting that the model accurately forecasts user satisfaction levels. Similarly, Trust items have RMSE values between 0.589 and 0.687, with MAE ranging from 0.360 to 0.439, indicating robust predictive power. Intention to Donate Waqf also shows consistent performance, with RMSE values between 0.625 and 0.733 and MAE ranging from 0.406 to 0.453.

Overall, the findings highlight the effectiveness of the PLS-SEM approach in predicting key constructs related to digital waqf platforms. While some minor discrepancies exist between the PLS-SEM and Benchmark datasets, particularly in terms of RMSE and MAE, the overall predictive relevance (Q^2_predict) remains strong, underscoring the model's ability to generalize well and provide reliable predictions for continued intention to donate waqf. This suggests that the model is not only theoretically sound but also practically useful for understanding and enhancing user engagement in digital waqf initiatives.

Table 7. Output of PLSpredict

Item	PLS-SEM			Benchmark		
Construct	Q^2_predict	RMSE	MAE	Q^2_predict	RMSE	MAE
SAT1	0.570	0.654	0.402	0.606	0.627	0.410
SAT2	0.480	0.690	0.407	0.531	0.655	0.433
SAT3	0.545	0.681	0.404	0.556	0.673	0.416
SAT4	0.620	0.601	0.365	0.644	0.582	0.378
TRU1	0.592	0.649	0.395	0.585	0.654	0.401
TRU2	0.639	0.589	0.360	0.649	0.581	0.378
TRU3	0.516	0.687	0.439	0.539	0.671	0.471
TRU4	0.529	0.685	0.422	0.553	0.668	0.434
TRU5	0.612	0.598	0.374	0.609	0.600	0.404
INT1	0.514	0.683	0.430	0.498	0.695	0.426
INT2	0.483	0.733	0.453	0.465	0.746	0.470
INT3	0.546	0.644	0.414	0.552	0.639	0.418
INT4	0.506	0.670	0.426	0.506	0.670	0.447
INT5	0.555	0.625	0.406	0.556	0.624	0.411

Source: Owned by The Authors (2025)

4.3. Robustness check

This study employs a nonlinear criterion to evaluate the alignment between the model constructs and theoretical expectations (Sarstedt et al., 2020). Although theoretical frameworks often assume linear relationships among constructs, real-world interactions may not always follow this pattern. Statistically, a nonlinear relationship implies that the strength of the association between two constructs depends not only on the magnitude of change in the independent construct but also on its specific value (Hair et al., 2011).

To address potential nonlinear effects, this study incorporates a polynomial model by including a quadratic term. Analysis of the results reveals that the quadratic effects are not statistically significant for any of the paths examined (see Table 8). Therefore, the lack of significant nonlinear interactions provides evidence supporting the robustness of the assumed linear relationships (Sarstedt et al., 2020).

Table 8. Output of quadratic effect

Construct Relationship	β	p-values	f^2	95% (BCCI)
System quality → satisfaction	0.233	0.000	0.038	(0.120; 0.341)
Information quality → satisfaction	0.107	0.068	0.006	(-0.006; 0.230)
Confirmation → satisfaction	0.569	0.000	0.184	(0.442; 0.691)
System quality → trust	0.191	0.000	0.035	(0.106; 0.288)
Information quality → trust	0.096	0.043	0.007	(0.003; 0.197)
Confirmation → trust	0.304	0.000	0.062	(0.198; 0.400)
Satisfaction → trust	0.341	0.000	0.100	(0.239; 0.440)
Satisfaction → continued intention to donate waqf	0.435	0.000	0.136	(0.319; 0.539)
Trust → continued intention to donate waqf	0.427	0.000	0.122	(0.320; 0.536)
Quadratic effect system quality → satisfaction	0.040	0.156	0.008	(-0.017; 0.085)
Quadratic effect information quality → satisfaction	-0.032	0.312	0.004	(-0.092; 0.041)
Quadratic effect confirmation → satisfaction	-0.008	0.835	0.000	(-0.089; 0.061)
Quadratic effect system quality → trust	0.055	0.034	0.021	(-0.001; 0.101)
Quadratic effect information quality → trust	-0.039	0.199	0.007	(-0.091; 0.020)
Quadratic effect confirmation → trust	-0.020	0.545	0.002	(-0.080; 0.037)
Quadratic effect satisfaction → trust	-0.014	0.702	0.001	(-0.083; 0.050)
Quadratic effect satisfaction → continued intention to donate waqf	-0.024	0.531	0.003	(-0.111; 0.053)
Quadratic effect trust → continued intention to donate waqf	0.005	0.902	0.000	(-0.079; 0.090)

Source: Owned by The Authors (2025)

5. Discussion

This section presents a comprehensive analysis of the hypotheses tested in the study, examining both direct and indirect effects within the Expectation-Confirmation Technology Model (ECTM) framework applied to digital waqf platforms, with findings interpreted in relation to prior research on technology acceptance, user satisfaction, trust, and continued intention. The results reveal that system quality has a statistically significant and positive effect on user satisfaction ($\beta = 0.233$, $p < 0.001$), supporting H_1 and aligning with previous studies by Kumar and Lata (2021), as well as Kuo et al. (2018) and Al-Okaily et al. (2021), which emphasize the importance of system and website quality in enhancing customer satisfaction in digital environments.

H_2 is partially supported, as information quality shows a positive influence on satisfaction, though the effect is weaker and marginally significant ($\beta = 0.107$, $p = 0.068$). This suggests its secondary role compared to other factors, a finding consistent with Al-Okaily et al. (2021) and Kumar and Lata (2021), who observed similar patterns in enterprise and e-commerce systems. System quality also significantly and positively influences trust ($\beta = 0.191$, $p < 0.001$), confirming H_3 and reinforcing the role of reliable and secure system performance in building user confidence, as previously demonstrated by Van Deventer (2024), Yu and Liu (2024), and Li and Xue (2021) in mobile banking and e-government contexts.

H_4 is supported, as information quality has a statistically significant positive effect on trust ($\beta = 0.096$, $p = 0.043$), albeit with a small effect size, indicating that transparency and accuracy contribute to trust formation, a finding consistent with Ryu and Ko (2020), though contrasting

with Karyani et al. (2024), where the effect was not significant. Confirmation exerts the strongest positive effect on satisfaction ($\beta = 0.569$, $p < 0.001$), fully supporting H_5 and reaffirming the core premise of the ECTM, as also observed by Pasaribu and Aruan (2024) and Hameed and Sumari (2024) across various digital platforms. H_6 is confirmed, as confirmation significantly enhances trust ($\beta = 0.304$, $p < 0.001$), consistent with Apriyansyah et al. (2024), Luo et al. (2024), and Zhang et al. (2024), who highlight the role of expectation fulfillment in trust development within digital financial systems.

H_7 is supported, as satisfaction significantly predicts trust ($\beta = 0.341$, $p < 0.001$), confirming a sequential relationship observed by Sukmana (2024), Ghosh and Dey (2024), and Martínez-Navalón et al. (2021) in charitable and digital review platforms. H_8 is confirmed, with satisfaction strongly influencing the intention to continue donating ($\beta = 0.435$, $p < 0.001$), underscoring its critical role in sustaining donor engagement, as also found by Fan and Jiang (2024), Tan et al. (2024), and Foroughi et al. (2024). Finally, H_9 is supported, as trust significantly and positively affects continued donation intention ($\beta = 0.427$, $p < 0.001$), highlighting its pivotal role in donor retention in digital philanthropy, a finding consistent with Sukmana (2024), Luo et al. (2024), and Huang (2024) in e-philanthropy and online learning contexts.

The indirect effect of system quality on continued donation intention, mediated by satisfaction, is statistically significant ($\beta = 0.080$, $p = 0.004$), supporting H_{10}. This indicates that higher perceived system quality enhances user satisfaction, which subsequently increases the likelihood of continued donations, a finding consistent with Li and Wang (2021), who emphasized that reliable and user-friendly systems foster positive experiences and long-term engagement in financial technologies. Wu and Tian (2021) similarly demonstrated that satisfaction mediates the relationship between system quality and continued use intention, while Al Amin et al. (2023) found that system quality, information quality, and confirmation jointly influence both e-satisfaction and continued intention.

H_{11} is supported, as information quality also exerts a significant indirect effect on continued donation intention through satisfaction ($\beta = 0.072$, $p = 0.008$), indicating that accurate and relevant information improves satisfaction and strengthens donor commitment. This result aligns with Masri et al. (2020), who observed that information quality influences continued intention via satisfaction in e-tourism platforms, reinforcing its cross-contextual relevance. Similar findings were reported by Li and Wang (2021) and Wu and Tian (2021), who confirmed that information system quality affects continued intention indirectly through satisfaction.

H_{12} is strongly supported, as confirmation demonstrates the most substantial indirect effect on continued donation intention through satisfaction ($\beta = 0.278$, $p < 0.001$), showing that when users' expectations are met or exceeded, their satisfaction increases, leading to stronger intentions to continue donating. This reinforces the core mechanism as highlighted by Luo et al. (2024), who identified confirmation as a key driver of continued usage intentions. Nguyen and Dao (2024) also found similar results in mobile banking contexts, where confirmation significantly influenced continued intention through satisfaction.

H_{13} is supported, as system quality indirectly influences continued donation intention through trust ($\beta = 0.045$, $p = 0.047$), although this effect is weaker than its impact through satisfaction. Nonetheless, it underscores the importance of system reliability in building donor confidence, consistent with Li and Wang (2021), who noted that system quality shapes continued intention via trust in service providers. Li and Xue (2021) further confirmed that trust mediates the relationship between system quality and citizens' continuous-use intention in e-government platforms, while Lin et al. (2021) demonstrated that system quality affects continued intention through trust in traceability technology platforms.

H_{14} is supported, as information quality has a significant indirect effect on continued donation intention through trust ($\beta = 0.061$, $p = 0.009$), indicating that transparent and reliable information fosters trust, which in turn sustains donor participation. This mirrors the findings of Li and Wang (2021), who showed that trust plays a critical mediating role in building continued intention, and Masri et al. (2020), who found that relevant information impacts continued intention via user trust in digital platforms. Li and Xue (2021) further supported this by demonstrating the essential mediating role of trust between information quality and continuous-use intention.

H_{15} is confirmed, as confirmation exerts a substantial indirect effect on continued donation intention through trust ($\beta = 0.147$, $p < 0.001$), indicating that when expectations are fulfilled, users develop greater trust in the platform, which strengthens their commitment to ongoing donations. This dual mediation of confirmation, through both satisfaction and trust, is supported by earlier studies such as Luo et al. (2024) who emphasized the pivotal roles of satisfaction and trust in sustaining user engagement. Zhang et al. (2024) also confirmed that confirmation positively influences continued intention through trust.

Collectively, these results demonstrate that satisfaction and trust serve as critical mediators in shaping continued donation intentions within digital waqf platforms. While system quality and information quality primarily influence satisfaction, confirmation plays a multifaceted role by affecting both satisfaction and trust. These findings highlight the strategic importance of ensuring transparent systems, high-quality information, and effective expectation-confirmation mechanisms to foster long-term donor engagement and trust. By addressing these factors, digital waqf platforms can enhance user experience and sustain philanthropic contributions over time.

6. Conclusion

6.1. Conclusion

This study investigated the factors influencing continued intention to donate waqf through digital platforms using an extended Expectation-Confirmation Technology Model (ECTM). The findings reveal that system quality, information quality, and confirmation significantly influence user satisfaction, which in turn drives trust and sustained donation intentions. Specifically, confirmation emerged as a pivotal construct, directly enhancing both satisfaction and trust, thereby reinforcing its critical role in shaping users' long-term engagement with digital waqf platforms. These insights align with broader technology acceptance theories and underscore the importance of meeting or exceeding user expectations to foster continuous participation in digital philanthropy.

The significance of this study lies in its contribution to both theory and practice within Islamic finance and digital philanthropy. By integrating the ECTM with constructs such as trust, this research enriches the understanding of how digital platforms can sustain user engagement in the context of religious-based giving. Moreover, the findings resonate with Sustainable Development Goals (SDGs), particularly SDG 1 (No Poverty) and SDG 17 (Partnerships for the Goals), by highlighting how digital waqf can enhance financial inclusion and mobilize resources for community development. Strengthening digital infrastructure and ensuring high-quality service delivery can amplify the impact of waqf in addressing socio-economic disparities and promoting collaborative efforts among stakeholders.

Despite its contributions, this study acknowledges certain limitations. First, data were collected primarily from Indonesian respondents, potentially limiting generalizability to other Muslim-majority countries with different cultural or technological contexts. Second, while the model explains a substantial variance in continued intention, unexplored variables such as religiosity, social norms, or emotional appeal may further enhance predictive power.

6.2. Recommendations

To advance both academic inquiry and practical implementation, several recommendations are proposed. Researchers should consider integrating additional psychological and sociocultural factors into future models to capture a more holistic view of digital waqf behavior. Practitioners and platform developers are encouraged to prioritize system usability, transparency, and real-time feedback mechanisms to enhance user experience and reinforce trust.

Regulatory bodies and Islamic financial institutions should collaborate to establish standardized digital frameworks that ensure accountability and scalability of waqf initiatives. Ultimately, fostering sustainable digital waqf ecosystems not only supports the continuity of charitable giving but also contributes meaningfully to achieving inclusive and resilient communities aligned with global sustainability targets.

References

Abd Aziz, A., Nor, R. N. H., Jusoh, Y. Y., Rahman, W. N. W. A., & Ali, N. M. (2024). Factors Influencing Information Quality of Information Systems: A Systematic Literature Review. *JOIV: International Journal on Informatics Visualization, 8*(3-2), 1923-1931. https://doi.org/10.62527/joiv.8.3-2.3483

Abed, S. S., & Alkadi, R. S. (2024a). Consumer continuous use of and satisfaction with Fintech payment applications in Saudi Arabia: towards an integrated model. *Journal of Financial Reporting and Accounting, ahead-of-print(ahead-of-print)*. https://doi.org/10.1108/JFRA-12-2023-0759

Abed, S. S., & Alkadi, R. S. (2024b). Sustainable Development through Fintech: Understanding the Adoption of Buy Now Pay Later (BNPL) Applications by Generation Z in Saudi Arabia. *Sustainability, 16*(15), 6368. https://doi.org/10.3390/su16156368

Al Amin, M., Muzareba, A. M., Chowdhury, I. U., & Khondkar, M. (2023). Understanding e-satisfaction, continuance intention, and e-loyalty toward mobile payment application during COVID-19: An investigation using the electronic technology continuance model. *Journal of Financial Services Marketing*, 1. https://doi.org/10.1057/s41264-022-00197-2

Al-Daihani, M., Che Abdullah, A. S., & Madun, A. (2024). Donors' intentions to use crowdfunding-based waqf model in Kuwait: application of unified theory on acceptance and use of technology (UTAUT) model. *Journal of Islamic Marketing, 15*(10), 2461-2480. https://doi.org/10.1108/JIMA-01-2023-0022

Al-Daihani, M., Dirie, K. A., Alam, Md. M., & Abdullah, A. S. (2025). Business process model for "crowdfunding cash waqf model." *Journal of Islamic Accounting and Business Research, 16*(1), 147-169. https://doi.org/10.1108/JIABR-02-2023-0046

Al-Mamary, Y. H., Abubakar, A. A., & Abdulrab, M. (2023). The effects of the expectation-confirmation model (ECM) and the technology acceptance model (TAM) on learning management systems (LMS) in sub-saharan Africa. *Interactive Learning Environments*, 1-17. https://doi.org/10.1080/10494820.2023.2191272

Al-Okaily, A., Al-Okaily, M., Ai Ping, T., Al-Mawali, H., & Zaidan, H. (2021). An empirical investigation of enterprise system user satisfaction antecedents in Jordanian commercial banks. *Cogent Business & Management, 8*(1), 1918847. https://doi.org/10.1080/23311975.2021.1918847

Al-Qudah, A. A., Al-Okaily, M., & Yadav, M. P. P. (2024). The growth of FinTech and blockchain technology in developing countries: UAE's evidence. *International Journal of Accounting & Information Management,* ahead-of-print(ahead-of-print). https://doi.org/10.1108/IJAIM-02-2024-0065

Aldosari, M. S. (2025). The role of Saudi women in advancing environmental sustainability: a case study of Riyadh, Saudi Arabia. *International Journal of Climate Change Strategies and Management, 17*(1), 127-146. https://doi.org/10.1108/IJCCSM-04-2024-0053

Alimusa, L. O., Sukmana, R., Ratnasari, R. T., Machfud, S., & Latif, S. D. H. (2024). Determinants of online cash waqf behavioural intentions for micro enterprises financing: the case of Indonesian Muslim youth. *Journal of Islamic Marketing*, ahead-of-print(ahead-of-print). https://doi.org/10.1108/JIMA-06-2023-0166

Alshammari, S. H., & Alshammari, R. A. (2024). An integration of expectation confirmation model and information systems success model to explore the factors affecting the continuous intention to utilise virtual classrooms. *Scientific Reports, 14*(1), 18491. https://doi.org/10.1038/s41598-024-69401-8

Alsulami, S. G., Albeladi, A. A., Kouchay, S. A., Altammam, A. A., Afifi, M. Y., Al-Qahtani, R. T. M., & Alnejaidi, I. K. (2024). Evaluating AI Educational Interventions: Impact on Student Satisfaction and Performance in Higher Education Islamic Studies. *Pakistan Journal of Life and Social Sciences (PJLSS), 22*(2). https://doi.org/10.57239/PJLSS-2024-22.2.00564

Althawadi, A., & Alastal, A. Y. M. (2024). The Impact of the Automated Accounting System on the Auditing Process in the Banking Sector in the Kingdom of Bahrain. In The AI Revolution: Driving Business Innovation and Research: *Volume 1 (pp. 173-190). Springer*. https://doi.org/10.1007/978-3-031-54379-1_15

Althinayyan, T., & Alojail, M. (2024). Enhancing User Experience and Sustainability in Open Banking Using PLS-SEM. *Sustainability, 16*(22), 9656. https://doi.org/10.3390/su16229656

Apriyansyah, B., Nareswari, N., Prasetyo, Y. T., Rohman, M. H., & Cahigas, M. M. (2024). Examining Determinant of Behavioral Intention to Continue Using Online Loans Through Expectation-Confirmation Model in The Context of Fintech Lending in Indonesia. *Proceedings of the 2024 4th International Conference on Internet and E-Business*, 88-96. https://doi.org/10.1145/3690001.3690032

Asyari, A., Hoque, M. E., Susanto, P., Begum, H., Awaluddin, A., Marwan, M., & Mamun, A. Al. (2024). Online cash waqf behavioral intention: the role of knowledge of cash waqf and trust. *Journal of Islamic Marketing, 15*(11), 2864-2890. https://doi.org/10.1108/JIMA-07-2023-0224

Bhatnagr, P., Rajesh, A., & Misra, R. (2024). Continuous intention usage of artificial intelligence enabled digital banks: a review of expectation confirmation model. *Journal of Enterprise Information Management, 37*(6), 1763-1787. https://doi.org/10.1108/JEIM-11-2023-0617

Bonang, D., Ismail, S., & Sukmana, R. (2024). Empowering the future of cash waqf through digitalisation: An insight into the philanthrophic intention of the Indonesian Muslim community. *ISRA International Journal of Islamic Finance, 16*(S1), 94-117. https://doi.org/10.55188/ijif.v16iS1.586

Bouteraa, M., Chekima, B., Amin, H., Tamma, E., Lada, S., Ansar, R., & Lim, M. F. (2024). Does consumer religiosity matter for green banking adoption? Evidence from a Muslim-majority market. *Journal of Islamic Marketing, 15*(7), 1807-1823. https://doi.org/10.1108/JIMA-02-2023-0049

Cho, M. H. (2024). Key Factors Affecting Startups' Contribution to SDGs for a Sustainable Future: Integrating a Triple Bottom Line (TBL) Theory. *Journal of Ecohumanism, 3*(7), 615-631. https://doi.org/10.62754/joe.v3i7.4232

De Paoli, S. (2024). Performing an inductive thematic analysis of semi-structured interviews with a large language model: An exploration and provocation on the limits of the approach.

Social Science Computer Review, 42(4), 997-1019. https://doi.org/10.1177/08944393231220483

Ebert, J., & Winzer, P. (2025). Bilateral Analysis of Consumer Trust in Mobile Providers: An Empirical Mixed Methods Approach in Germany. *Proceedings of the 58th Hawaii International Conference on System Sciences*. https://doi.org/10.24251/HICSS.2025.490

Elkington, J. (1997). The triple bottom line. *Environmental Management: Readings and Cases, 2*, 49-66. https://johnelkington.com/archive/TBL-elkington-chapter.pdf

Fajri, M. Z. N. (2024). Exploring the Trend of Behavioral Studies in Waqf Literature A Bibliometric Analysis. *Proceedings of Femfest International Conference on Economics, Management, and Business, 2*(2). https://ejournal.unida.gontor.ac.id/index.php/FICCOMSS/article/view/13752

Fan, P., & Jiang, Q. (2024). Exploring the Factors Influencing Continuance Intention to Use AI Drawing Tools: Insights from Designers. *Systems, 12*(3), 68. https://doi.org/10.3390/systems12030068

Fellicia, N., Berlianto, M. P., Ekonomi, F., Bisnis, D., & Manajemen, M. (2024). Enrichment: Journal of Management Influencing factors of customer satisfaction and purchase decision in Apple products. *Enrichment: Journal of Management, 14*(5). https://doi.org/10.35335/enrichment.v14i5.2139

Foroughi, B., Huy, T. Q., Iranmanesh, M., Ghobakhloo, M., Rejeb, A., & Nikbin, D. (2024). Why users continue E-commerce chatbots? Insights from PLS-fsQCA-NCA approach. *The Service Industries Journal, 1*-31. https://doi.org/10.1080/02642069.2024.2371910

Fu, C. J., Silalahi, A. D. K., Shih, I. T., Phuong, D. T. T., Eunike, I. J., & Jargalsaikhan, S. (2024). Assessing ChatGPT's Information Quality Through the Lens of User Information Satisfaction and Information Quality Theory in Higher Education: A Theoretical Framework. *Human Behavior and Emerging Technologies,* 2024. https://doi.org/10.1155/2024/8114315

Ghosh, A., & Dey, A. K. (2024). Electrifying Customer Satisfaction and Loyalty: A Structural Equation Modelling Approach in the Indian Four-Wheeler Electric Vehicle Industry. *Srusti Management Review*, 17(1). https://srustimanagementreview.ac.in/archive/details/NDY3

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. Journal of Marketing Theory and Practice, 19(2), 139-152. https://doi.org/10.2753/MTP1069-6679190202

Hameed, A.-R. A. G., & Sumari, P. Bin. (2024). Adoption and continued usage of mobile learning of virtual platforms in Iraqi higher education an unstable environment. *International Journal of Information Management Data Insights, 4*(2), 100242. https://doi.org/10.1016/j.jjimei.2024.100242

Hamidi, M. L., & Worthington, A. C. (2021). Islamic banking sustainability: theory and evidence using a novel quadruple bottom line framework. *International Journal of Bank Marketing, 39*(5), 751-767. https://doi.org/10.1108/IJBM-06-2020-0345

Hamidi, M. L., & Worthington, A. C. (2023). Beyond the triple bottom line: Prosperity, People, Planet, and Prophet in Islamic banking. *Journal of Islamic Marketing, 14*(2), 394-409. https://doi.org/10.1108/JIMA-02-2021-0036

Helvacıoğlu, M., Bulut, M., Cherif El-Amri, M., & Mohammed, M. O. (2021). A Critical Analysis of The Economic Dimensions of SDGs Based on Islamic Economics Perspective. http://artikel.ubl.ac.id/index.php/pm/article/view/1392

Huang, C. H. (2021). Exploring the continuous usage intention of online learning platforms from the perspective of social capital. *Information, 12*(4), 141. https://doi.org/10.3390/info12040141

Huda, N., Trianto, B., & Maskuroh, N. (2025). Intention to donate in green waqf among Muslim community: Indonesian case. *Journal of Islamic Marketing, 16*(3), 736-758. https://doi.org/10.1108/JIMA-02-2023-0044

Kamarudin, M. K., Mustaffa, F. N. A., Ganti, N., Mohamad Norzilan, N. I., Noor Zainan, N. I., & Khidzir, M. (2024). Determinants of donation intentions in Malaysia. *International Journal of Social Economics*. https://doi.org/10.1108/IJSE-04-2023-0291

Kang, S., Choi, Y., & Kim, B. (2024). Impact of Motivation Factors for Using Generative AI Services on Continuous Use Intention: Mediating Trust and Acceptance Attitude. *Social Sciences, 13*(9), 475. https://doi.org/10.3390/socsci13090475

Karyani, E., Geraldina, I., Haque, M. G., & Zahir, A. (2024). Intention to adopt a blockchain-based halal certification: Indonesia consumers and regulatory perspective. *Journal of Islamic Marketing, 15*(7), 1766-1782. https://doi.org/10.1108/JIMA-03-2023-0069

Kasmon, B., Ibrahim, S. S., Daud, D., Raja Hisham, R. R. I., & Ratnasari, R. T. (2024). Future behavior in waqf digitalization: integrating UTAUT and DIT theories. Journal of Islamic Marketing. https://doi.org/10.1108/JIMA-03-2024-0111

Kim, C.-G., & Yang, O.-S. (2024). Global Companies' Dynamic Response to Business Environment Uncertainty through Digital Transformation: Sustainable Digital Quality-Customer Value-Market Performance Relationships. *Sustainability, 16*(15), 6541. https://doi.org/10.3390/su16156541

Kim, J., & Yum, K. (2024). Enhancing Continuous Usage Intention in E-Commerce Marketplace Platforms: The Effects of Service Quality, Customer Satisfaction, and Trust. *Applied Sciences, 14*(17), 7617. https://doi.org/10.3390/app14177617

Kumar, A., & Lata, S. (2021). The system quality and customer satisfaction with website quality as mediator in online purchasing: A developing country perspectives. *Journal of Operations and Strategic Planning, 4*(1), 7-26. https://doi.org/10.1177/2516600X21991945

Kuo, K. M., Liu, C. F., Talley, P. C., & Pan, S. Y. (2018). Strategic improvement for quality and satisfaction of hospital information systems. *Journal of Healthcare Engineering, 2018*(1), 3689618. https://doi.org/10.1155/2018/3689618

Lacap, J. P. G., & Cruz-Espanol, R. (2024). Factors Affecting Satisfaction and Intention to Recommend Mobile Wallet Services: Mediation and Moderation Analyses. In Consumer and Organizational Behavior in the Age of AI (pp. 77-118). *IGI Global*. https://doi.org/10.4018/979-8-3693-8850-1.ch004

Leniwati, D., Amelia, S. A., & Affan, M. W. (2023). Islamic Corporate Social Responsibility (ICSR): Integrating Islamic Values in CSR Beyond the Triple Bottom Line Perspective. *Indonesian Journal of Sustainability Accounting and Management, 7*(2), 397. https://doi.org/10.28992/ijsam.v7i2.559

Li, W., & Xue, L. (2021). Analyzing the critical factors influencing post-use trust and its impact on Citizens' continuous-use intention of E-Government: Evidence from Chinese municipalities. *Sustainability (Switzerland), 13*(14). https://doi.org/10.3390/su13147698

Li, Y., & Wang, J. (2021). Evaluating the impact of information system quality on continuance intention toward cloud financial information system. *Frontiers in Psychology, 12*, 713353. https://doi.org/10.3389/fpsyg.2021.713353

Lin, X., Chang, S. C., Chou, T. H., Chen, S. C., & Ruangkanjanases, A. (2021). Consumers' intention to adopt blockchain food traceability technology towards organic food products. *International Journal of Environmental Research and Public Health, 18*(3), 912. https://doi.org/10.3390/ijerph18030912

Luo, C., Hasan, N. A. M., & Zamri bin Ahmad, A. M. (2024). Exploring Satisfaction and Trust as Key Drivers of e-Government Continuance Intention: Evidence from China for

Sustainable Digital Governance. *Sustainability (Switzerland), 16*(24). https://doi.org/10.3390/su162411068

Lutfi, A., Al-Okaily, M., Alsyouf, A., & Alrawad, M. (2022). Evaluating the D&M IS Success Model in the Context of Accounting Information System and Sustainable Decision Making. *Sustainability (Switzerland), 14*(13). https://doi.org/10.3390/su14138120

Luu Thi Thuy, D., Thi, U. N., Vo Hanh, Q., & Nguyen Thi My, N. (2024). Enhancing satisfaction and word of mouth of young mobile banking users through system quality and individual performance. *Cogent Business & Management, 11*(1), 2338925. https://doi.org/10.1080/23311975.2024.2338925

Martínez-Navalón, J. G., Gelashvili, V., & Gómez-Ortega, A. (2021). Evaluation of User Satisfaction and Trust of Review Platforms: Analysis of the Impact of Privacy and E-WOM in the Case of TripAdvisor. *Frontiers in Psychology, 12*. https://doi.org/10.3389/fpsyg.2021.750527

Masri, N. W., You, J. J., Ruangkanjanases, A., Chen, S. C., & Pan, C. I. (2020). Assessing the effects of information system quality and relationship quality on continuance intention in e-tourism. *International journal of environmental research and public health, 17*(1), 174. https://doi.org/10.3390/ijerph17010174

Mater, W., Aldwairi, M., Matar, N., & Al-Rahmi, W. M. (2024). Developing a success model of a social student relationship management system. *Heliyon, 10*(4). https://doi.org/10.1016/j.heliyon.2024.e25941

Maulina, R., Dhewanto, W., & Faturohman, T. (2024). How to attract wealthy Muslims to contribute to cash waqf (Islamic endowment) held by the Islamic banks? Case in Indonesia. *Journal of Islamic Marketing, 15*(12), 3323-3356. https://doi.org/10.1108/JIMA-11-2022-0312

Megat, P. A., Al-Shaghdari, F., Bin Ngah, B., & Abdelfattah, S. S. (2024). Assessing the predictive benefits of Waqftech smart contracts on corporate waqf crowdfunding among Malaysian enterprises. *Journal of Islamic Marketing, 15*(5), 1303-1325. https://doi.org/10.1108/JIMA-08-2023-0262

Nazish, M., Khan, M. N., & Khan, Z. (2024). Environmental sustainability in the digital age: unraveling the effect of social media on green purchase intention. *Young Consumers, 25*(6), 1015-1035. https://doi.org/10.1108/YC-01-2024-1965

Nguyen, G. D., & Dao, T. H. T. (2024). Factors influencing continuance intention to use mobile banking: an extended expectation-confirmation model with moderating role of trust. *Humanities and Social Sciences Communications, 11*(1), 1-14. https://doi.org/10.1057/s41599-024-02778-z

Nofianti, L., Mukhlisin, M., & Irfan, A. (2024). Cash waqf innovation in Islamic financial institutions and its governance issues, case studies: Indonesia, Malaysia, Türkiye. *Journal of Islamic Accounting and Business Research,* ahead-of-print(ahead-of-print). https://doi.org/10.1108/JIABR-12-2023-0420

Nuh, A., Rizan, M., & Sadat, A. M. (2025). Exploring Continued Use Intention of the AI Platform Among Students in Indonesia: An Extended ECM Framework. *Interdisciplinary Journal of Information, Knowledge, and Management, 20,* 006. https://doi.org/10.28945/5444

Ozuem, W., Willis, M., & Howell, K. (2022). Thematic analysis without paradox: sensemaking and context. *Qualitative Market Research: An International Journal, 25*(1), 143-157. https://doi.org/10.1108/QMR-07-2021-0092

Pasaribu, E., & Aruan, D. T. H. (2024). Craving continuity: unveiling the impact of integrating information system success and expectation confirmation models on sustained use of food delivery apps. Asian Journal of Engineering, *Social and Health, 3*(6), 1359-1376. https://doi.org/10.46799/ajesh.v3i6.342

Qamruzzaman, M., Karim, S., & Kor, S. (2024). Nexus between innovation-openness-natural resources-environmental quality in N-11 countries: what is the role of environmental tax? *Sustainability, 16*(10), 3889. https://doi.org/10.3390/su16103889

Qatawneh, N., Al-Okaily, A., Al-Okaily, M., & Rehman, S. U. (2024). Exploring the antecedent factors of continuous intention to use mobile money: insights from emerging markets. *Digital Policy, Regulation and Governance*, ahead-of-print. https://doi.org/10.1108/DPRG-04-2024-0080

Rahardja, U., Hongsuchon, T., Hariguna, T., & Ruangkanjanases, A. (2021). Understanding impact sustainable intention of s-commerce activities: The role of customer experiences, perceived value, and mediation of relationship quality. *Sustainability (Switzerland), 13*(20). https://doi.org/10.3390/su132011492

Ramírez-Márquez, C., Posadas-Paredes, T., Raya-Tapia, A. Y., & Ponce-Ortega, J. M. (2024). Natural resource optimization and sustainability in society 5.0: A comprehensive review. *Resources, 13*(2), 19. https://doi.org/10.3390/resources13020019

Risher, J., & Hair, J. (2017). The Robustness of PLS Across Disciplines. https://www.researchgate.net/publication/332354144

Rouf, M. A., Begum, H., & Babu, M. A. (2024). Customer Trust and Satisfaction: Insights from Mobile Banking Sector in Bangladesh. *International Journal, 34*(1), 117-131. https://doi.org/10.58970/IJSB.2339

Ryu, H. S., & Ko, K. S. (2020). Sustainable development of Fintech: Focused on uncertainty and perceived quality issues. *Sustainability (Switzerland), 12*(18). https://doi.org/10.3390/su12187669

Sarstedt, M., Ringle, C. M., Cheah, J. H., Ting, H., Moisescu, O. I., & Radomir, L. (2020). Structural model robustness checks in PLS-SEM. *Tourism Economics, 26*(4), 531-554. https://doi.org/10.1177/1354816618823921

Sinulingga, N. A. B., Ginting, P., Sembiring, B. K. F., & Silalahi, A. S. (2024). Impact of Information Quality and Customer Interaction on Fintech Adoption: A Conceptual Framework. In Artificial Intelligence, Digitalization and Regulation (pp. 727-736). *Springer*. https://doi.org/10.1007/978-3-031-67531-7_58

Sukmana, H. T. (2024). The Success Factors of E-Philanthropy are Determined Based on Perceived Trust, Perceived Usefulness, Subjective Norms, Enjoyment and Religiosity: A Case Study on a Charity Site. *Journal of Applied Data Sciences, 5*(3), 1087-1095. https://doi.org/10.47738/jads.v5i3.310

Susanto, H., Martono, T., Wardani, D. K., Sangka, K. B., & Wahyono, B. (2024). The quality dimensions and acceptance of the newly launched e-procurement system (SIPLah) in Indonesian schools: Insights from a comprehensive dataset. *Data in Brief, 55*, 110613. https://doi.org/10.1016/j.dib.2024.110613

Tan, S.-H., Chong, L.-L., & Ong, H.-B. (2024). Continuance usage intention of e-wallets: Insights from merchants. *International Journal of Information Management Data Insights, 4*(2), 100254. https://doi.org/10.1016/j.jjimei.2024.100254

Tang, G. (2025). Using mixed methods research to study research integrity: Current status, issues, and guidelines. *Accountability in Research,* 1-22. https://doi.org/10.1080/08989621.2024.2449041

Tessema, W. M., & Cavus, N. (2024). Determining information system end-user satisfaction and continuance intension with a unified modeling approach. *Scientific Reports, 14*(1), 6882. https://doi.org/10.1038/s41598-024-57218-4

Van Deventer, M. (2024). Mediating effect of mobile banking trust on information and system quality. *Journal of Marketing and Consumer Behaviour in Emerging Markets, 18*(1), 1-13. https://doi.org/10.7172/2449-6634.jmcbem.2024.1.1

Widiastuti, T., Mawardi, I., Samer Ali, A.-S., Atiya, N., Rani, L. N., Robani, A. B., & Al Mustofa, M. U. (2025). Determinant factors for online cash waqf intention among Muslim millennial generation. *Journal of Islamic Marketing, 16*(1), 258-289. https://doi.org/10.1108/JIMA-12-2023-0408

Wu, M., & Long, R. (2024). How do perceptions of information usefulness and green trust influence intentions toward eco-friendly purchases in a social media context? *Frontiers in Psychology,* 15. https://doi.org/10.3389/fpsyg.2024.1429454

Wu, R. Z., & Tian, X. F. (2021). Investigating the impact of critical factors on continuous usage intention towards enterprise social networks: An integrated model of is success and TTF. *Sustainability, 13*(14), 7619. https://doi.org/10.3390/su13147619

Yi, J., Oh, Y. K., & Kim, J.-M. (2025). Unveiling the drivers of satisfaction in mobile trading: Contextual mining of retail investor experience through BERTopic and generative AI. *Journal of Retailing and Consumer Services, 82,* 104066. https://doi.org/10.1016/j.jretconser.2024.104066

Yoo, S., Lee, D. J., & Atamja, L. (2023). Influence of Online Information Quality and Website Design on User Shopping Loyalty in the Context of E-Commerce Shopping Malls in Korea. *Sustainability (Switzerland), 15*(4). https://doi.org/10.3390/su15043560

Yu, F., & Liu, L. (2024). How to build trust on entertaining farm stay in sharing economy? Trust formation and its impact on repurchase intention. *International Food and Agribusiness Management Review, 27*(4), 689-705. https://doi.org/10.22434/ifamr1114

Zhang, W., Zheng, J., & Li, Y. (2024). Explaining Chinese Consumers' Continuous Consumption Intention toward Prepared Dishes: The Role of Perceived Risk and Trust. *Foods, 13*(1). https://doi.org/10.3390/foods13010088

About the authors

Aishath Muneeza *is Professor and Associate Dean for Students and Internationalization at INCEIF University, Malaysia, and a leading expert in Islamic finance. She served as Deputy Minister of Ministry of Islamic Affairs & Ministry of Finance & Treasury in the Maldives and played a key role in developing its Islamic finance framework. She is a registered Shariah Adviser in the Maldives, Srilanka and Malaysia and serves on several boards and Shariah Committees of financial institutions in different parts of the world.*

Dalila Daud *is a researcher at the Faculty of Accountancy, Universiti Teknologi MARA, Malaysia. Her research spans behavioural economics, business administration, Islamic economics, and qualitative social research. She is currently working on a project focused on waqf accounting and governance, exploring the intersection of Islamic finance, transparency, and institutional accountability.*

Ade Falah *is a lecturer in Islamic Education Management at STIT Fatahillah, where he also earned his master's degree. His research focuses on Islamic educational philosophy, ethics (akhlak), Qur'anic pedagogy (tafsir tarbawi), early marriage awareness from an Islamic legal perspective, and the role of mosques in community-based Islamic education. He has published in national journals such as An-Nuur and Jurnal Keguruan dan Pendidikan, and has contributed to academic books on management, philosophy, and education in Indonesia.*

Declaration of competing interest

The authors declare that they have no conflict of interest.

Acknowledgement

The authors gratefully acknowledge the editor and reviewers for their thoughtful comments, constructive feedback, and valuable suggestions.

Ethical statement

This study adhered to ethical guidelines to protect the rights, dignity, and welfare of all participants.

Data availability

The data supporting this study are available from the corresponding author upon reasonable request.

AI assistance statement

AI was used only to improve the language clarity and grammar of the manuscript. All ideas, analyses, and interpretations were entirely developed and verified by the authors.