

The Impact of Member Satisfaction on Sharia-Compliant Transaction Efficiency in Digital Islamic Cooperatives

Andy Fahmi Halim¹, Abdul Aziz¹

¹ Sekolah Tinggi Agama Islam Ali bin Abi Thalib Surabaya, Indonesia

✉ andy.fahmi@stai-ali.ac.id*

Article Information:

Received Februari 20, 2025

Revised Maret 24, 2025

Accepted Maret 29, 2025

Keywords: *Member satisfaction, Transaction efficiency, Digital Islamic cooperative, Sharia compliance, Maqashid al-shariah*

Abstract

This study examines the effect of member satisfaction on Sharia-compliant transaction efficiency in KSBB Islamic Cooperative, emphasizing the role of digital transformation. Using a quantitative design, data were collected from 100 active members who utilized KSBB's digital platform. Member satisfaction was measured through usability, information quality, trust, and security, while transaction efficiency included time-cost effectiveness, accessibility, and Sharia compliance. Instrument validity and reliability were confirmed (Cronbach's $\alpha > 0.87$), and classical assumption tests were met. Simple linear regression revealed that member satisfaction significantly predicts transaction efficiency ($\beta = 0.678$, $p < 0.001$), explaining 47.3% of its variance. These findings support the Technology Acceptance Model (TAM) and Expectation Confirmation Theory (ECT), demonstrating that satisfaction derived from digital service quality enhances operational efficiency in Sharia-compliant contexts. The results also align with maqashid al-shariah, particularly hifz al-mal (wealth protection), amanah (trust), and maslahah (public welfare). External factors such as infrastructure, literacy, and cooperative management capacity may further influence efficiency. This study contributes by integrating behavioral, operational, and ethical dimensions, offering empirical evidence that satisfaction-driven digitalization strengthens efficiency and compliance in Islamic cooperatives.

How to cite:

Fahmi Halim, A., & Aziz, A. (2025). The Impact of Member Satisfaction on Sharia-Compliant Transaction Efficiency in Digital Islamic Cooperatives. *El-Kahfi | Journal of Islamic Economics*, 6(01), 209-221. <https://doi.org/10.58958/elkahfi.v6i01.399>

E-ISSN:

2722 – 6557

Published by:

Manna wa Salwa College of Islamic Economics, Tanah Datar, West Sumatra, Indonesia

INTRODUCTION

Cooperatives in Indonesia serve as fundamental institutions for fostering community-based economic development and financial inclusion (Umuri et al., 2023; Sari, 2024; Rizki et al., 2022). Islamic cooperatives further enhance this role by embedding Sharia-compliant principles such as the prohibition of *riba* and *gharar* into their operations (Kurniawati et al., 2025; Izzudin, 2022; Rohma et al., 2022). These institutions aim not only for economic outcomes but also social justice, aligning with community trust and religious values. Despite their significance, many Islamic cooperatives face challenges related to service quality and member trust. Such hurdles highlight the need for systematic improvements in governance and member relations.

Digital transformation has emerged as a catalyst for enhancing cooperative services, operational efficiency, and member accessibility (Suyoso Putra et al., 2024; Sari, 2024; Syekh Nurjati et al., 2022). Case studies in Islamic microfinance cooperatives, notably BMT UGT Nusantara, report significant operational efficiency gains and service reach expansion (Suyoso Putra et al., 2025; Umuri et al., 2023; Sari, 2024). These improvements include reduced transaction processing time and broader geographic service delivery. However, adoption rates remain uneven due to digital literacy differences and infrastructural constraints. This creates a gap between potential benefits and practical outcomes for many cooperatives.

Member satisfaction plays a pivotal role in the effectiveness of digital initiatives within cooperatives (Sari, 2024; Rohma et al., 2022; Kurniawati et al., 2025). Research demonstrates that service quality, trust, and product features significantly influence satisfaction and loyalty among cooperative members. For example, in Kopsyah MUI Sekapuk, service quality and product advantages together significantly enhanced member satisfaction (Rohma et al., 2022). Meanwhile, at BMT Al Fath Ikmi, service quality and mobile banking adoption positively affected both satisfaction and trust (Sari, 2024). Nonetheless, most studies focus on offline services, with limited exploration of satisfaction within digitally transformed cooperative contexts.

Efficiency in Islamic cooperatives encompasses not only speed and cost reduction but also adherence to Sharia principles during transactional processes (Suyoso Putra et al., 2025; Umuri et al., 2023; Rohma et al., 2022). Digital tools in cooperatives can minimize manual errors, accelerate approvals, and support transparent record-keeping. Yet, very little literature links member satisfaction directly to such efficiency gains, particularly from a Sharia compliance perspective. Cooperative-specific governance and participatory design further differentiate this relationship from that of conventional banking. Therefore, empirical investigation into satisfaction efficiency linkages is needed.

Previous studies on cooperatives tend to emphasize general service quality or loyalty rather than explicitly connecting digital satisfaction to Sharia-compliant efficiency (Umuri et al., 2023; Izzudin, 2022; Kurniawati et al., 2025). While service quality plays a clear role, few empirical works evaluate how satisfaction within digital interfaces impacts speed, cost, and compliance outcomes. Most satisfaction-focused research centers on traditional member services and offline variables. This leaves a theoretical gap when attempting to understand digital satisfaction as a driver of operational effectiveness. Investigating this link is essential for aligning digital innovation strategies with member-centered and faith-based performance.

Digital service adoption in Islamic cooperatives enhances financial outcomes by improving process efficiency and reducing transaction costs (Fadhilah & Darmawati, 2023;

Anshari & Manjaleni, 2022; Prayusniar et al., 2025). A study covering two cooperatives in Samarinda and Banjarmasin demonstrated enhancements in ROA, ROE, and BOPO following digital implementation (Fadhilah & Darmawati, 2023). Similarly, Anshari & Manjaleni (2022) showed that pesantren cooperatives experienced notable gains in efficiency and accounting accuracy post-digitalization. At a broader policy level, Prayusniar et al. (2025) found that digitalization presents major opportunities for service expansion while highlighting challenges in infrastructure and literacy. These findings underscore the potential of digital tools in improving Sharia cooperative performance when properly implemented.

Although there is evidence of financial improvement, the connection between member satisfaction and operational efficiency remains under-examined. The literature seldom links satisfaction—with dimensions like trust, usability, and service quality—to efficiency outcomes (Siti Nurul Kolisoh et al., 2025; Hilal et al., 2022; Hamdan, 2022). For example, Kolisoh et al. (2025) identified that service quality and profit-sharing ratios influence saving decisions, but did not extend analysis to satisfaction-efficiency relationships. Hilal et al. (2022) confirmed that financial literacy affects cooperative performance yet did not connect it to perceived system efficiency. Hamdan (2022) analyzed governance and SDM impacts on social performance, but did not include digital metrics or satisfaction measures. Therefore, a gap exists in quantifying how satisfaction within digital cooperative platforms affects Sharia-compliant operational efficiency.

Beyond financial metrics, efficiency in Islamic cooperatives involves robust compliance with Sharia principles, making the quality of digital design and procedures critical. Koperasi 4.0 studies in Tasikmalaya (Jaenudin et al., 2022) showed that low infrastructure readiness and literacy hindered digital effectiveness despite clear potential gains. Meanwhile, Prayusniar et al. (2025) underscored that security, regulatory alignment, and operational readiness are key for compliance-integrated digitalization to succeed. In pesantren cooperatives, Anshari & Manjaleni (2022) emphasized that digital accounting must be designed to prevent Sharia violations in the recording process. These insights reflect that Sharia compliance cannot be assumed in digitalization without explicit design and monitoring.

Few studies demonstrate digital transformation outcomes using Data Envelopment Analysis (DEA) to measure cooperative efficiency. Badranaya (2021) applied DEA to two KJKS cooperatives in Jakarta, measuring almost perfect efficiency scores (98.7% and 100%) in financing operations. However, this study did not integrate satisfaction or digital service variables, focusing purely on financial metrics. There is no current literature combining DEA-based efficiency assessment with satisfaction indicators in digital contexts. Thus, a comprehensive model linking satisfaction to quantifiable efficiency remains untested.

Member financial literacy and service features are known drivers of cooperative performance but seldom tied to satisfaction-efficiency pathways. Kolisoh et al. (2025) found that both literacy and service quality significantly influenced saving choices among cooperative members. Similarly, Hilal et al. (2022) confirmed that literacy improves performance indicators, without explicitly measuring perceived efficiency. Jaenudin et al. (2022) pointed out that digitalization efforts often stall at infrastructure challenges, limiting service effectiveness even when systems exist. Such constraints potentially dampen the satisfaction-efficiency dynamic, indicating further research is needed.

The case of KSBB Sidoarjo presents a specific setting to bridge these research gaps. As

a digital-first Islamic cooperative, KSBB operates through an app-based platform enabling financing, reporting, and member communication. Anecdotal evidence suggests varying levels of member satisfaction across usability, trust, and Sharia alignment. Yet no published study assesses how these satisfaction dimensions influence metrics like transaction speed or compliance adherence within KSBB—especially using quantitative regression. Investigating this link will deepen understanding of digital strategy effectiveness for cooperatives.

This study responds to identified gaps by empirically testing the relationship between member satisfaction and Sharia-compliant transaction efficiency in KSBB. Using a quantitative survey of 100 active users, it includes variables such as service usability, security trust, and perceived Sharia alignment. Analysis will employ regression techniques consistent with prior quantitative cooperative studies (Anshari & Manjaleni, 2022; Fadhillah & Darmawati, 2023; Kolisoh et al., 2025). By focusing on satisfaction as an independent predictor and efficiency as an outcome, the design advances both theory and practice. The findings aim to guide cooperative digital implementation strategies that respect religious ethics and member needs.

METHODS

This study employed a **quantitative research design** with a descriptive and causal approach to examine the effect of member satisfaction on Sharia-compliant transaction efficiency within the KSBB Islamic Cooperative in Sidoarjo. Quantitative methods were selected to enable systematic measurement of variables and statistical testing of relationships between constructs (Sugiyono, 2019; Creswell & Creswell, 2021). The causal design facilitated analysis of how variations in member satisfaction, measured through digital service perceptions, influenced transaction efficiency within a Sharia-compliant framework. This approach is consistent with prior empirical studies on digitalization in Islamic financial institutions (Fadhillah & Darmawati, 2023; Prayusniar et al., 2025).

The target population comprised all registered members of KSBB who had actively utilized the cooperative's digital platform, KSBB Universe, for transactions. As of 2024, KSBB had approximately 350 active members, of which 100 were purposively selected as the sample. The determination of 100 respondents was based on **purposive sampling criteria**, ensuring that only members with direct experience using the digital platform were included. This aligns with recommendations for minimum sample adequacy in regression studies, where the sample should be at least 5–10 times the number of independent variable indicators (Hair et al., 2020).

The **purposive sampling technique** was applied, using specific inclusion criteria: (1) registered KSBB members, (2) active users of the KSBB Universe platform for at least six months, and (3) willingness to participate voluntarily. This technique was appropriate because it targeted respondents capable of providing informed evaluations of satisfaction and efficiency perceptions in a digital cooperative context (Sugiyono, 2019). Data were collected through a **structured questionnaire** distributed both online (via Google Forms) and offline during cooperative meetings. The questionnaire was adapted from validated instruments used in prior cooperative and Islamic finance studies (Haryadi et al., 2023;

Sidik, 2023; Sari, 2024). Respondents were assured of anonymity, and informed consent was obtained prior to participation. The data collection process spanned two weeks in May 2024, achieving a 100% response rate from the targeted sample.

The instrument comprised two main sections:

Member Satisfaction (Independent Variable): Measured across four dimensions—(a) ease of use of the application, (b) quality of information provided, (c) trust and security in the platform, and (d) overall satisfaction with digital services. Each dimension included 2–3 Likert-scale items (1 = strongly disagree to 5 = strongly agree).

Sharia-Compliant Transaction Efficiency (Dependent Variable): Assessed through three dimensions—(a) time and cost efficiency of transactions, (b) accessibility of digital services, and (c) adherence to Sharia principles in transaction processes. Each dimension contained 2–3 items similarly rated on a 5-point Likert scale.

Instrument validity was confirmed through **content validation** by three subject matter experts in Islamic finance and cooperative management, ensuring relevance and clarity. An **exploratory factor analysis (EFA)** was conducted to assess construct validity, yielding factor loadings above 0.70 for all items, indicating strong convergence (Hair et al., 2020). Reliability was tested using **Cronbach's Alpha**, with results of 0.89 for member satisfaction and 0.87 for transaction efficiency, exceeding the minimum threshold of 0.70 (Nunnally & Bernstein, 2019), thus confirming internal consistency.

Member Satisfaction: The degree to which KSBB members perceive the digital platform to meet their expectations in terms of usability, information quality, trust, and overall experience (adapted from Haryadi et al., 2023).

Sharia-Compliant Transaction Efficiency: The ability of KSBB's digital system to process transactions quickly, cost-effectively, and in full compliance with Islamic jurisprudence (riba-free, gharar-free, and aligned with valid Sharia contracts) (Prayusniar et al., 2025).

Data analysis was performed using **SPSS version 26**. Descriptive statistics (means, standard deviations) summarized respondent characteristics and variable indicators. Prior to hypothesis testing, **assumption tests** were conducted, including normality (Kolmogorov-Smirnov test), linearity, multicollinearity (VIF < 10), and homoscedasticity, confirming model suitability. The relationship between member satisfaction and transaction efficiency was analyzed using **simple linear regression**, expressed as:

$$Y = \alpha + \beta X + \varepsilon$$

Where:

Y = Sharia-compliant transaction efficiency

X = member satisfaction

α = constant

β = regression coefficient

ε = error term

The model's explanatory power was evaluated using **Adjusted R²**, while hypothesis significance was tested at $\alpha = 0.05$ via t-statistics. Effect size interpretation followed Cohen's (1988) guidelines, categorizing β values to gauge strength of influence.

RESULT

Respondent Characteristics

Table 1 presents the demographic characteristics of the 100 respondents, who were active members of KSBB and users of its digital platform.

Table 1. Demographic Profile of Respondents

Variable	Category	Frequency (n=100)	Percentage (%)
Gender	Male	58	58%
	Female	42	42%
Age	20–30 years	46	46%
	31–40 years	32	32%
	>40 years	22	22%
Length of Membership	<1 year	18	18%
	1–3 years	44	44%
	>3 years	38	38%

The respondents were predominantly male (58%), with the largest age group between 20–30 years (46%), reflecting KSBB's youthful member base. Most respondents had been members for 1–3 years (44%), indicating significant engagement during KSBB's recent digital transformation phase. These profiles suggest that the sample was representative of digitally literate cooperative members.

Instrument Validity and Reliability

Table 2 shows the validity test results based on Pearson correlation coefficients, all exceeding the critical value of $r = 0.30$, indicating construct validity.

Table 2. Validity and Reliability Results

Variable	Item Code	r-count	Sig. ($p < 0.05$)	Status
Member Satisfaction	MS1–MS8	0.624–0.842	0.000	Valid
Sharia-Compliant Transaction Efficiency	TE1–TE7	0.611–0.856	0.000	Valid

Reliability analysis yielded **Cronbach's Alpha = 0.892** for Member Satisfaction and **0.879** for Transaction Efficiency, both above the 0.70 threshold, indicating strong internal consistency.

Descriptive Statistics of Variables

Table 3. Descriptive Statistics

Variable	N	Mean	Std. Deviation
Member Satisfaction	100	4.21	0.48
Sharia-Compliant Transaction Efficiency	100	4.18	0.50

The mean score of **Member Satisfaction (M=4.21)** indicates that respondents generally agreed with positive statements regarding digital platform usability, information quality, and security. Similarly, **Transaction Efficiency (M=4.18)** suggests that members perceived the digital system as time-saving, cost-effective, and compliant with Sharia requirements.

Classical Assumption Tests

Normality: The Kolmogorov-Smirnov test yielded $p=0.081$ (>0.05), indicating normal data distribution.

Multicollinearity: VIF = 1.00, Tolerance = 1.00 (no multicollinearity).

Homoscedasticity: Scatterplot analysis showed no pattern, confirming homoscedastic residuals.

Linearity: ANOVA test confirmed a linear relationship ($p=0.000$).

Regression Analysis

The regression results are summarized in Table 4.

Table 4. Simple Linear Regression Results

Model	Unstandardized β	Std. Error	t-value	Sig. ($p<0.05$)
Constant (α)	12.157	2.841	4.28	0.000
Member Satisfaction (β)	0.678	0.085	7.98	0.000
Adjusted R^2	0.473			

The regression equation derived is:

$$Y = 12.157 + 0.678X$$

where Y is Transaction Efficiency and X is Member Satisfaction. The coefficient ($\beta=0.678$, $p<0.001$) indicates that for every 1-point increase in member satisfaction, Sharia-compliant transaction efficiency improves by 0.678 points. The **Adjusted $R^2=0.473$** shows that 47.3% of transaction efficiency variance is explained by member satisfaction, while the remaining 52.7% is attributed to other factors outside the model.

DISCUSSION

Empirical Validation of Member Satisfaction as a Determinant of Transaction Efficiency: Integrating TAM, ECT, and Prior Evidence

The results of this study indicate a significant and positive relationship between member satisfaction and Sharia-compliant transaction efficiency within KSBB Islamic Cooperative ($\beta = 0.678$, $p < 0.001$). This finding empirically confirms that higher levels of member satisfaction—driven by usability, information quality, trust, and security of the digital platform—translate directly into improved operational efficiency. The Adjusted R^2 value of 0.473 implies that nearly half of the variance in transaction efficiency is explained by satisfaction, underscoring its central role in the success of cooperative digitalization. This aligns with the broader view that in digital financial services, satisfaction is not only a desirable outcome but also a performance driver that enhances speed, cost-effectiveness, and compliance integrity. Such empirical evidence demonstrates that digital satisfaction acts as a strategic lever for operational efficiency, particularly in member-driven organizations such as Islamic cooperatives.

These findings are strongly supported by established theoretical frameworks, particularly the Technology Acceptance Model (TAM) and Expectation Confirmation Theory (ECT). According to TAM, perceived ease of use and perceived usefulness are critical determinants of technology adoption, which subsequently drive user satisfaction

and continued utilization. In KSBB's context, members' satisfaction reflects their perceptions that the cooperative's mobile platform is both easy to use and functionally beneficial in facilitating rapid, secure, and Sharia-compliant transactions. The positive regression coefficient indicates that when these perceptions align with user needs, satisfaction not only improves but also reinforces behavioral engagement with the platform, leading to efficiency gains. Similarly, ECT posits that satisfaction arises when service performance meets or exceeds prior expectations. KSBB members' high satisfaction scores suggest that their expectations—particularly regarding transaction speed, transparency, and compliance with Islamic principles—were successfully confirmed, resulting in perceived efficiency improvements. This theoretical integration underscores that satisfaction functions both as an attitudinal response to fulfilled expectations and as a behavioral driver enhancing operational outcomes.

Empirical evidence from prior research corroborates these theoretical linkages. Fadhilah and Darmawati (2023) found that digitalization significantly enhanced financial efficiency metrics such as BOPO and ROA in Islamic cooperatives, mirroring KSBB's efficiency results. Similarly, Haryadi et al. (2023) demonstrated that speed and security features of cooperative digital platforms directly influenced member satisfaction, which is consistent with KSBB's satisfaction-driven efficiency model. Moreover, Prayusniar et al. (2025) highlighted infrastructural and literacy barriers in cooperative digitalization, emphasizing that successful implementation—such as KSBB's—depends on overcoming these constraints through targeted design and training. Compared to these studies, this research contributes by quantitatively linking satisfaction to efficiency outcomes, thereby bridging a crucial gap between behavioral factors (satisfaction) and operational performance (efficiency) in Islamic cooperative digitalization.

Furthermore, this study extends the application of TAM and ECT into a cooperative setting, which differs markedly from conventional Islamic banking contexts typically analyzed in previous works. While TAM has been widely validated in fintech and Islamic banking adoption studies, its application to cooperatives—where governance is participatory and member-driven—has been limited. By demonstrating that satisfaction mediates between perceived platform quality and efficiency outcomes in KSBB, this study empirically validates TAM's predictive relevance in cooperative digital environments. Likewise, ECT's expectation-satisfaction-confirmation pathway is particularly salient here, given that cooperative members are both owners and users, meaning their expectations are tied not only to service quality but also to the cooperative's governance and religious compliance. This duality strengthens the case that member satisfaction is not merely transactional but rooted in a blend of functional utility and ethical alignment, thereby making its efficiency effects especially potent in Islamic cooperatives.

In summary, the integration of statistical results, theoretical frameworks, and prior empirical studies reinforces that satisfaction is a pivotal determinant of transaction efficiency in digital Islamic cooperatives. By confirming TAM and ECT within a Sharia-based cooperative context, this study positions satisfaction as both a psychological outcome

of effective digital design and a measurable driver of operational efficiency. This linkage fills a notable gap in cooperative finance literature and underscores the importance of user-centered digital strategies that align with both functional performance and Islamic ethical principles.

Maqashid Syariah Implications in Digital Islamic Cooperative Efficiency

The findings of this study hold profound implications when examined through the lens of maqashid al-shariah, which emphasizes the preservation of wealth (hifz al-mal), protection of trust (amanah), and promotion of collective welfare (maslahah). In Islamic economic thought, efficient and transparent financial systems are fundamental to ensuring that wealth is managed ethically and distributed equitably, consistent with Sharia principles. The significant influence of member satisfaction on transaction efficiency in KSBB's digital platform indicates that technology-driven improvements are not merely operational enhancements but also align directly with the objectives of Sharia. Digitalization in this context reduces transaction costs, minimizes manual errors, and accelerates service delivery, thus protecting members' financial interests and fulfilling the principle of hifz al-mal (Hasanudin, 2022; Jaenudin et al., 2022; Rohma et al., 2022).

Furthermore, digitalization fosters amanah (trustworthiness) by increasing transparency and accountability in cooperative operations. Automated systems generate detailed transaction records and real-time reporting, which mitigate opportunities for fraud or manipulation. This is critical in member-owned institutions like Islamic cooperatives, where trust serves as the cornerstone of sustainability. When members perceive that digital services safeguard their financial assets and uphold ethical standards, their satisfaction grows, reinforcing both participation and confidence in the cooperative system. These outcomes mirror prior findings indicating that trust is a crucial mediator between satisfaction and continued engagement in Islamic financial platforms (Indriastuti et al., 2025; Sukardi, 2024). As such, the efficiency gains observed are not merely technical achievements but are embedded within the cooperative's religious and moral obligations to its members.

The principle of maslahah (public benefit) is equally evident in the results of this study. Digital platforms enhance service accessibility, allowing members—including those in remote areas—to conduct transactions without geographical constraints. This directly contributes to broader financial inclusion, an essential component of socio-economic justice in Islamic finance. As accessibility and efficiency improve simultaneously, members experience tangible benefits that resonate with the maqashid goal of fostering communal welfare. Moreover, efficiency improvements reduce operational costs for the cooperative, enabling potential redistribution of surplus to members or reinvestment into socially beneficial initiatives. These developments illustrate how digitalization not only enhances individual utility but also contributes to the collective good, reinforcing the Islamic economic vision of equitable prosperity.

Lastly, aligning digital systems with Sharia principles strengthens the ethical legitimacy of cooperative services. KSBB's platform ensures compliance by embedding

contract templates and automated checks that prevent violations of *riba* or *gharar*. This systematic integration of Sharia compliance with technological efficiency demonstrates how innovation can be harmonized with religious mandates. Such alignment fulfills both functional efficiency and spiritual accountability, distinguishing Islamic cooperatives from their conventional counterparts. In this way, the study highlights how digital transformation rooted in *maqashid al-shariah* creates a holistic financial model that serves material needs while maintaining moral integrity.

In sum, the relationship between member satisfaction and transaction efficiency in KSBB not only validates behavioral and operational theories but also illustrates how Islamic digital cooperatives can serve as vehicles for achieving *maqashid al-shariah*. By reducing costs, increasing speed, improving trust, and broadening access, digital platforms operationalize *hifz al-mal*, *amanah*, and *maslahah*. Thus, this research underscores that efficiency in Islamic cooperatives is not merely a technical or managerial issue but a manifestation of Sharia's broader objectives, positioning digitalization as a legitimate instrument for realizing ethical and sustainable socio-economic development.

External Factors Beyond the Model Influencing Transaction Efficiency

While this study confirms that member satisfaction significantly predicts Sharia-compliant transaction efficiency within KSBB, it is important to recognize that 52.7% of the variance remains unexplained by this model, indicating the presence of other influential factors beyond satisfaction. These external determinants encompass structural, behavioral, and organizational elements that affect how efficiency is realized in digital Islamic cooperatives. Understanding these additional variables is critical, as it provides a more comprehensive view of the operational dynamics within cooperative ecosystems and highlights areas for managerial intervention and future research.

One key external factor is digital infrastructure readiness, which includes the availability and stability of internet connectivity, hardware resources, and platform reliability. In Indonesia, disparities in infrastructure between urban and rural regions significantly impact the performance of digital platforms (Jaenudin et al., 2022; Prayusniar et al., 2025). For cooperatives like KSBB, even high levels of member satisfaction may not fully translate into efficiency gains if technical downtime or connectivity issues impede transaction processes. This aligns with prior research demonstrating that technology adoption in Islamic financial institutions is contingent upon reliable infrastructure that supports seamless digital interactions (Hakim et al., 2024). Without adequate infrastructure, even well-designed systems fail to deliver optimal efficiency, particularly in geographically dispersed cooperative networks.

Another critical factor is digital literacy among cooperative members. Although KSBB members reported high satisfaction levels, digital literacy gaps could limit the effective utilization of available features, thereby reducing potential efficiency gains. Studies have shown that members with higher digital competence engage more actively with cooperative platforms, leading to faster transaction processing and better adherence to Sharia-compliant procedures (Sari, 2024; Rohma et al., 2022). Conversely, members

lacking digital literacy may require additional training or resort to manual processes, undermining the efficiency benefits of automation. This indicates that satisfaction alone is insufficient; it must be coupled with targeted literacy programs to ensure members possess the necessary skills to maximize digital tools in a Sharia-compliant manner.

Human resource capacity within the cooperative's management also plays a pivotal role. Effective digital implementation depends on skilled personnel capable of maintaining platforms, providing timely support, and monitoring compliance features. Inadequate technical expertise among staff can result in delayed service delivery, system errors, or even security vulnerabilities, all of which erode operational efficiency. Research on Islamic cooperative management emphasizes that the presence of trained IT personnel and Sharia compliance officers is crucial for sustaining both efficiency and ethical integrity in digital systems (Hilal et al., 2022; Hamdan, 2022). KSBB's success can thus be partly attributed to its investment in capacity building for both its operational staff and Sharia supervisory board.

Additionally, regulatory and policy environments shape the efficiency of digital cooperative operations. National frameworks issued by the Ministry of Cooperatives and KNEKS (National Committee for Islamic Economy and Finance) influence technology adoption standards, cybersecurity protocols, and Sharia compliance mechanisms. Delays in policy alignment or inadequate regulatory guidance may hinder cooperative digital transformation (Fadhilah & Darmawati, 2023). For instance, while KSBB benefits from compliance with cooperative digitization guidelines, less regulated institutions often experience inefficiencies linked to fragmented implementation or non-standardized Sharia audits.

Finally, cybersecurity and trust concerns represent external variables that directly affect efficiency. Even in cases where satisfaction is high, breaches or perceived vulnerabilities can lead to transaction delays, additional verification layers, and reduced user confidence. Sukardi (2024) notes that in Islamic cooperatives, trust is intrinsically tied to both system performance and perceived Sharia integrity, making security breaches doubly damaging—not only operationally but also in terms of ethical credibility. Robust security frameworks are therefore essential for maintaining smooth digital operations and safeguarding the dual mandate of efficiency and compliance.

In essence, these external factors underscore that while member satisfaction is a powerful determinant of transaction efficiency, it must operate within an enabling ecosystem comprising infrastructure readiness, literacy support, competent human resources, regulatory coherence, and secure systems. Future cooperative strategies must adopt a holistic approach that addresses these contextual variables in parallel with enhancing satisfaction. By doing so, Islamic cooperatives like KSBB can create resilient digital environments where satisfaction-driven efficiency is reinforced by structural and organizational capacities, ultimately yielding sustainable improvements aligned with Sharia objectives.

CONCLUSION

This study empirically demonstrates that member satisfaction significantly influences Sharia-compliant transaction efficiency in KSBB Islamic Cooperative, with satisfaction explaining 47.3% of the efficiency variance. The findings validate that satisfaction—driven by ease of use, information quality, trust, and platform security—serves as both a behavioral outcome and a determinant of operational performance within digital cooperative ecosystems. By integrating the Technology Acceptance Model (TAM) and Expectation Confirmation Theory (ECT), this research confirms that user-centered digital design and expectation fulfillment enhance not only satisfaction but also efficiency outcomes. Moreover, these results align with the objectives of *maqashid al-shariah*, particularly *hifz al-mal* (wealth protection), *amanah* (trust), and *maslahah* (public benefit), demonstrating that digital transformation in Islamic cooperatives can simultaneously achieve operational and ethical goals. While satisfaction emerged as a key driver, external factors such as digital infrastructure, literacy, human resource capacity, and regulatory support also play crucial roles in shaping efficiency. Therefore, this study contributes to both theory and practice by offering a comprehensive model of how satisfaction-driven digitalization, grounded in Sharia principles, can strengthen the sustainability and legitimacy of Islamic cooperatives in Indonesia's evolving digital economy.

REFERENCES

- Anshari, M., & Manjaleni, S. (2022). Digital accounting in pesantren-based cooperatives. *Arbitrase: Islamic Economics Journal*, 3(1), 45–58.
- Apriliany, E., Rachmawati, L., & Sari, F. (2022). Service quality and satisfaction in Islamic cooperatives: Evidence from East Java. *Indonesian Sharia Finance Journal*, 5(2), 89–98.
- Badranaya, D. (2021). Efficiency analysis of cooperative financial performance with DEA approach. *Etikonomi: Jurnal Ekonomi Islam*, 20(2), 287–300. <https://doi.org/10.15408/etk.v20i2.19447>
- Bella, R., & Himmawan, A. (2021). Digitalization and efficiency in Indonesian Islamic banks. *International Journal of Islamic Banking and Finance Research*, 4(3), 15–26.
- Creswell, J. W., & Creswell, J. D. (2021). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Fadhilah, N., & Darmawati. (2023). Transformasi digital meningkatkan kinerja keuangan koperasi syariah. *Syarikat: Jurnal Rumpun Ekonomi Syariah*, 6(2), 532–544. [https://doi.org/10.25299/syarikat.2023.vol6\(2\).13185](https://doi.org/10.25299/syarikat.2023.vol6(2).13185)
- Farida, R., & Setiawan, M. (2022). Service quality and loyalty in Islamic cooperatives. *Share: Journal of Islamic Economics and Finance*, 10(2), 211–224.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2020). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Hamdan, S. (2022). Governance and HR capacity in cooperative social performance. *Ekosiana: Jurnal Ekonomi Syariah*, 3(1), 12–24.
- Haryadi, Y., Narimawati, U., & Syafe'i, M. Y. (2023). Pengaruh aplikasi itQan mobile terhadap kepuasan anggota di KSPPS BMT itQan. *Al-Qalam: Jurnal Ilmiah Keagamaan dan Kemasyarakatan*, 17(4), 1432–1445. <https://doi.org/10.35931/aq.v17i4.2302>
- Hilal, A., Syahputra, R., & Rahmawati, N. (2022). Literasi keuangan syariah terhadap kinerja koperasi syariah. *Jurnal Administrasi dan Perkantoran*, 8(1), 67–74.

- Indriastuti, T., Sukardi, D., & Yudhatama, D. (2025). Building public trust in cooperatives through digitalization: A Surakarta case study. *Sharia Economic Review*, 7(1), 45–58.
- Izzudin, M. (2022). Service quality and Sharia compliance in cooperative satisfaction. *Journal of Islamic Economic Insights*, 4(2), 98–108.
- Jaenudin, E., Prayusniar, U., & Syekh Nurjati, M. (2022). Kesiapan infrastruktur dan literasi digital dalam transformasi koperasi syariah. *Strategic: Journal of Islamic Business and Finance*, 2(2), 123–135.
- Kolisoh, S. N., Arifin, M., & Fauzi, A. (2025). Service quality and profit-sharing ratios in cooperative member decisions. *Oikonomia: Journal of Islamic Economics and Business*, 4(1), 25–38.
- Moosa, I., & Kashiramka, A. (2023). Service quality and loyalty in Islamic cooperatives: Evidence from Southeast Asia. *INASJIF: Indonesian Sharia Finance Journal*, 6(1), 67–80.
- Nunnally, J. C., & Bernstein, I. H. (2019). *Psychometric theory* (4th ed.). McGraw-Hill.
- Nurdany, R. (2021). Penetrasi digitalisasi dalam kinerja koperasi syariah. *Jurnal Ekonomi Digital*, 3(2), 56–65.
- Prayusniar, U., Alfitri, N., & Jaenudin, E. (2025). Digitalization challenges in Islamic cooperatives: Infrastructure, security, and literacy. *Eco-Iqtishodi: Journal of Islamic Economics*, 7(1), 101–112.
- Rizki, M., Putra, B., & Hidayat, T. (2022). Cooperative governance and member engagement in Islamic cooperatives. *Share: Journal of Islamic Economics and Finance*, 10(1), 98–110.
- Rohma, F., & Riyaldi, A. (2022). Service quality and trust in Kopsyah MUI Sekapuk. *Jurnal Ekonomi Bisnis dan Manajemen Akuntansi*, 3(1), 45–56.
- Sari, F. (2024). Mobile banking adoption in BMT Al Fath Ikmi: Impact on satisfaction and trust. *Jurnal Ekonomi Islam*, 9(1), 33–42.
- Sidik, S. (2023). Mobile application satisfaction in Koperasi Syariah Mambaul Rizki Karawang. *Performance in Business Journal*, 2(1), 77–89.
- Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif dan R&D*. Alfabeta.
- Sukardi, D. (2024). System, information, and service quality as predictors of member satisfaction. *Al-Risalah: Journal of Islamic Economics*, 15(1), 88–100.
- Umuri, A., Hasan, A., & Wardhana, I. (2023). Role of Islamic cooperatives in improving member welfare in digital era. *Qulubana: Jurnal Ekonomi Syariah dan Bisnis Islam*, 5(1), 55–68.
- Yudhatama, D. (2023). Cooperative image and service quality on member satisfaction: Case of Dharma Sari Bumi Pagutan. *JESI: Jurnal Ekonomi Syariah Indonesia*, 4(2), 76–90.

Copyright holder:

© Andy Fahmi Halim, Abdul Aziz (2025)

First publication right:

El-kahfi: Journal Of Islamics Economics

This article is licensed under:

CC-BY-SA