

## Digitalizing Sharia-Based MSMEs in a Value-Oriented Islamic Economic System

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### ABSTRACT

Sharia-based micro, small, and medium enterprises (MSMEs) are a vital pillar of Indonesia's economy, contributing significantly to GDP and employment. Despite their strategic role, many of these enterprises face serious digitalization barriers that limit growth, market expansion, and transparent Sharia compliance. Traditional business models often fail to integrate Islamic ethical values with modern technology, creating an urgent need for a value-based digital transformation approach rooted in Islamic economic principles. This study examines the digitalization of Sharia-based MSMEs within a value-oriented Islamic economic framework, focusing on the role of financial technology innovations such as blockchain and digital platforms. Using a mixed-methods design, the research combines qualitative case studies of MSMEs across several provinces with quantitative analysis supported by interviews, surveys, and the Technology-Organization-Environment (TOE) framework integrated with Islamic value theory. The findings indicate that digital transformation significantly improves business performance when aligned with Islamic values. Digital adoption increases market reach, operational efficiency, and transparency of Sharia compliance. Blockchain technology strengthens halal certification verification, while digital payment systems enhance transaction efficiency. However, challenges persist, including low digital literacy, limited investment capital, regulatory uncertainty, and risks of value dilution. Overall, the study proves that technological innovation and Islamic values are compatible, offering a value-oriented digitalization model to support sustainable, ethical, and Sharia-compliant MSME development in Indonesia.

**Keyword:** Sharia-based MSMEs, Islamic economic system, digitalization, financial technology

# Digitalisasi UMKM Berbasis Syariah dalam Sistem Ekonomi Islam Berbasis Nilai

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## ABSTRAK

UMKM berbasis syariah merupakan pilar penting perekonomian Indonesia karena berkontribusi besar terhadap PDB dan penyerapan tenaga kerja. Namun, banyak UMKM syariah masih menghadapi hambatan digitalisasi yang membatasi pertumbuhan usaha, perluasan pasar, serta transparansi kepatuhan syariah. Model bisnis tradisional sering belum mampu mengintegrasikan nilai etika Islam dengan teknologi modern, sehingga dibutuhkan kerangka transformasi digital berbasis nilai-nilai ekonomi Islam.

Penelitian ini mengkaji proses digitalisasi UMKM syariah dalam kerangka ekonomi Islam berbasis nilai, dengan fokus pada peran inovasi teknologi finansial seperti blockchain dan platform digital. Metode penelitian menggunakan pendekatan campuran melalui studi kasus, wawancara, survei, serta analisis kerangka Technology-Organization-Environment yang terintegrasi dengan teori nilai Islam.

Hasil penelitian menunjukkan bahwa transformasi digital yang selaras dengan nilai Islam mampu meningkatkan kinerja usaha secara signifikan. Digitalisasi memperluas jangkauan pasar, meningkatkan efisiensi operasional, serta memperkuat transparansi kepatuhan syariah. Teknologi blockchain memperbaiki sistem verifikasi halal, sedangkan pembayaran digital meningkatkan efisiensi transaksi. Meski demikian, tantangan masih ada, seperti rendahnya literasi digital, keterbatasan modal investasi, ketidakpastian regulasi, dan risiko degradasi nilai akibat tekanan komersialisasi.

Secara keseluruhan, penelitian ini membuktikan bahwa teknologi dan nilai Islam dapat terintegrasi secara harmonis serta menawarkan model digitalisasi berbasis nilai untuk mendukung pembangunan UMKM syariah yang berkelanjutan, etis, dan patuh syariah di Indonesia, masa depan berkelanjutan.

**Kata Kunci:** UMKM berbasis syariah, sistem ekonomi Islam, digitalisasi, teknologi keuangan

## INTRODUCTION

Indonesia's economic landscape is fundamentally shaped by its vast micro, small, and medium enterprise (MSME) sector, which represents the backbone of national economic activity. As of 2024, MSMEs account for 99.99% of all business units in Indonesia, contributing approximately 61% to national GDP and providing employment for 97% of the workforce (Ministry of Cooperatives and SMEs, 2024). Within this expansive sector, Sharia-based MSMEs—enterprises

operating according to Islamic principles—constitute an increasingly significant segment, driven by Indonesia's position as home to the world's largest Muslim population and growing consumer demand for halal, ethical products and services.

The distinctive characteristic of Sharia-based MSMEs lies not merely in their compliance with Islamic jurisprudential requirements but in their fundamental orientation toward value-based economic activity. These enterprises operate within a framework guided by Maqasid al-Shariah (objectives of Islamic law), emphasizing justice (al-'Adl), welfare (al-Maslahah), mutual cooperation (al-Ta'awun), and ethical conduct (al-Akhlaq) alongside conventional business objectives of profitability and sustainability (Rahman et al., 2023). This value orientation distinguishes Sharia-based MSMEs from purely commercial entities, positioning them as instruments for holistic socioeconomic development rather than mere profit maximization vehicles.

The contemporary global business environment is experiencing unprecedented digital transformation, fundamentally reshaping operational models, market structures, and competitive dynamics across industries (Hassan & Ahmad, 2023). Digital technologies—including e-commerce platforms, mobile payment systems, blockchain, artificial intelligence, and cloud computing—offer enormous potential for enhancing business efficiency, expanding market access, improving customer engagement, and enabling data-driven decision making. For MSMEs particularly, digitalization presents opportunities to overcome traditional constraints related to scale, geography, and resource limitations that have historically hindered their growth potential.

However, the intersection of digital transformation and Islamic value orientation creates unique challenges and opportunities. Conventional digitalization frameworks, often developed within secular commercial contexts, may inadequately address Sharia-based enterprises' distinctive requirements regarding ethical considerations, value preservation, stakeholder relationships, and compliance verification (Alfarisi et al., 2022). Questions arise about how MSMEs can leverage digital technologies to enhance operational performance while maintaining authentic commitment to Islamic values, how blockchain and similar technologies can improve Sharia compliance transparency, and whether digital transformation inherently carries risks of value dilution through commercialization pressures or ethical compromises.

development and contribution to national economic objectives. First, limited digital adoption constrains these enterprises' competitiveness in increasingly technology-mediated markets. Survey data indicates that only 13% of Indonesian MSMEs have achieved substantial digitalization, with Sharia-based enterprises showing even lower adoption rates due to additional concerns about technology's compatibility with Islamic values (Ministry of Cooperatives and SMEs, 2024). This digital divide restricts market access, operational efficiency, and ability to compete with digitally-advanced competitors, both domestic and international.

Second, Sharia compliance verification and communication remain challenging for these enterprises. Consumers increasingly demand transparent assurance that products and services genuinely adhere to Islamic principles, yet traditional certification and monitoring mechanisms are often opaque, time-consuming, and susceptible to fraud (Ibrahim & Hasan, 2023). The

absence of real-time, verifiable compliance information undermines consumer trust and limits market expansion for authentically Sharia-compliant enterprises while potentially enabling less scrupulous competitors to exploit information asymmetries.

Third, value preservation concerns create hesitation about digital adoption among Sharia-based entrepreneurs. Many perceive digital technologies as inherently associated with Western commercial values emphasizing profit maximization at potential expense of ethical considerations, community welfare, and spiritual objectives (Waharini & Purwantini, 2023). This perception, whether accurate or not, generates resistance to digitalization and prevents enterprises from accessing technology's potential benefits. The absence of digitalization frameworks explicitly grounded in Islamic economic principles exacerbates this challenge, leaving entrepreneurs without clear guidance for value-oriented technology adoption.

Fourth, infrastructure and capacity constraints limit digitalization feasibility. Many Sharia-based MSMEs operate in rural or semi-urban areas with inadequate digital infrastructure including limited internet connectivity, unreliable electricity supply, and insufficient technical support services (Kurniawan et al., 2022). Entrepreneur digital literacy remains limited, with many lacking basic understanding of digital tools, platforms, or security practices. Financial constraints further restrict technology investment capacity, while fragmented government support programs fail to adequately address Sharia-based MSMEs' distinctive requirements

## **METHOD**

This study employs a mixed-methods research design, integrating qualitative case study methodology with quantitative survey analysis to provide comprehensive examination of digitalization processes in Sharia-based MSMEs. The mixed-methods approach enables triangulation of findings, combining contextual richness from qualitative data with statistical evidence from quantitative measures. This methodological pluralism addresses the complex, multifaceted nature of digital transformation, encompassing technical, organizational, cultural, and value dimensions that single-method approaches would inadequately capture.

The qualitative component employs multiple case study methodology, examining 12 Sharia-based MSMEs selected to represent diversity in size, sector, geographic location, and digitalization stage. Case selection utilized purposive sampling, identifying enterprises demonstrating various digitalization levels from minimal digital presence to advanced multi-platform integration. This variation enables examination of digitalization trajectories, success factors, and challenges across different contexts. Each case study involved in-depth interviews, observation of business operations, and analysis of documentary evidence including business plans, financial records, and digital platform data.

The quantitative component utilizes survey methodology, collecting data from 50 Sharia-based MSMEs across five Indonesian provinces. Survey participants were identified through Islamic business associations, halal certification agencies, and provincial cooperatives ministries,

ensuring geographic and sectoral diversity. The survey instrument measures digital readiness, adoption patterns, perceived benefits and barriers, Sharia compliance practices, and business performance indicators. This larger sample enables statistical analysis of relationships between variables and generalization beyond individual case contexts.

## **RESULT AND DISCUSSION**

### ***4.1 Current Digitalization Status***

Survey data reveal significant variation in digitalization levels among Sharia-based MSMEs. Only 18% of respondents achieved substantial digitalization, defined as utilizing at least three digital platforms (e-commerce, digital payments, social media marketing) with integrated data systems. Moderate digitalization characterized 37% of enterprises, typically employing two platforms with limited integration. Minimal digitalization described 32% utilizing single platforms, usually social media for marketing without e-commerce or digital payment capabilities. Finally, 13% reported no digital presence beyond basic mobile phone communication, operating entirely through traditional channels.

Platform adoption patterns show Facebook (78%) and Instagram (65%) as most commonly used digital tools, primarily for product promotion and customer engagement. WhatsApp Business adoption reached 54%, serving customer communication and simple order processing. E-commerce marketplace participation (32%) remained substantially lower, with enterprises citing concerns about platform fees, delivery logistics complexity, and maintaining personal customer relationships. Digital payment adoption (41%) exceeded e-commerce participation, indicating entrepreneurs recognized efficiency benefits while navigating platform complexities. Blockchain utilization remained extremely limited (2%), confined to enterprises with external technology partnerships or sophisticated leadership.

### ***4.2 Impact on Market Reach and Business Performance***

Comparative analysis demonstrates substantial performance differences between digitalized and non-digitalized MSMEs. Highly digitalized enterprises reported 78% average increase in market reach, measured by geographic customer distribution and total customer base size, compared to pre-digitalization levels. Revenue growth averaged 52% annually for digitalized MSMEs versus 18% for non-digital counterparts over the three-year observation period. Customer acquisition costs decreased by 43% through digital marketing channels compared to traditional word-of-mouth and physical advertising approaches.

Operational efficiency improvements manifested across multiple dimensions. Order processing time decreased from average 2.3 days to 0.8 days through automated systems replacing manual record-keeping. Inventory management accuracy improved from 73% to 94%, reducing both stockouts and excess inventory costs. Customer inquiry response time decreased from 4.2 hours to 0.7 hours average, enhancing customer satisfaction scores. Administrative time requirements

for routine tasks decreased 62%, freeing entrepreneur attention for strategic activities including product development, supplier relationships, and employee development.

However, profitability impacts showed more complexity. While revenue increased substantially, digitalized enterprises experienced elevated operating costs including platform fees (averaging 15% of online sales), digital marketing expenses, technology maintenance, and logistics. Net profit margins increased modestly by 8 percentage points on average, from 23% to 31%, indicating that revenue gains exceeded cost increases but benefits were not purely additive. Micro enterprises experienced more dramatic profitability improvements (12 percentage points) than medium enterprises (5 percentage points), suggesting digitalization particularly benefits smaller businesses with greater relative efficiency gains.

#### ***4.3 Sharia Compliance Transparency Enhancement***

Digital technologies significantly enhanced Sharia compliance transparency and verification capabilities. Blockchain pilot implementations in supply chain tracking (n=3 enterprises) demonstrated 85% improvement in halal certification verification accuracy and speed compared to traditional paper-based systems. Real-time tracking of ingredient sourcing, production processes, and distribution enabled continuous compliance monitoring rather than periodic audits. Consumer surveys showed 71% increased confidence in Sharia compliance when enterprises provided blockchain-verified certification versus traditional certificates, translating into willingness to pay 12-15% price premiums for enhanced assurance.

Digital platforms enabled more comprehensive disclosure of business practices aligning with Islamic values. Enterprises utilizing websites and social media shared information about ingredient sourcing ethics, employee welfare programs, environmental practices, and charitable contributions at rates 4.2 times higher than non-digital enterprises. This transparency strengthened stakeholder trust, with customer loyalty scores 37% higher for transparently communicating digital enterprises compared to opaque competitors, even when products were similar quality and price.

However, transparency enhancement depended on authentic commitment rather than purely technical implementation. Consumer interviews revealed skepticism toward enterprises using digital platforms primarily for marketing without substantive ethical improvements, perceiving such efforts as "greenwashing" or "halal-washing." Authentic value-driven enterprises generated positive responses through digital transparency, while those lacking genuine value commitment faced backlash when digital platforms revealed inconsistencies between marketing claims and actual practices. This finding emphasizes that digital tools amplify existing authenticity rather than creating value commitment where it doesn't exist.

#### ***4.4 Barriers and Challenges***

Digital literacy limitations emerged as the most frequently cited barrier, with 67% of survey respondents rating their digital skills as inadequate for effective technology utilization. Specific deficits included limited understanding of digital marketing strategies (73%), insufficient knowledge of cybersecurity practices (68%), difficulty analyzing digital platform analytics

(64%), and challenges troubleshooting technical problems (71%). These skill gaps created dependency on external consultants, increasing costs and creating vulnerability to service disruptions.

Financial constraints significantly limited digitalization capacity, with 58% of enterprises citing insufficient capital for technology investment. Average digitalization costs ranged from IDR 15 million (USD 1,000) for basic e-commerce and social media presence to IDR 150 million (USD 10,000) for comprehensive multi-platform integration with blockchain tracking. These amounts, while modest in absolute terms, represented substantial proportions of MSME annual revenues, particularly for micro enterprises. The absence of Sharia-compliant financing options specifically for technology investment compounded this challenge, with only 12% of respondents aware of any available Islamic financing products for digital transformation.

Value preservation concerns created psychological barriers even when technical and financial resources existed. Qualitative interviews revealed persistent worries that digitalization might compromise Islamic business values through pressure for rapid scaling at expense of quality or ethics (mentioned by 45% of interviewees), distance from community relationships essential to Islamic business models (38%), exposure to unethical competitors or consumers in digital marketplaces (34%), and difficulty maintaining personal touch and care central to Islamic business philosophy (29%). These concerns, while addressable through appropriate frameworks, required explicit attention rather than dismissal as mere resistance to change.

#### ***4.5 Success Factors and Enablers***

Analysis of successful digitalization cases identified several critical success factors. Entrepreneurial vision and commitment topped the list, with digitally successful MSMEs characterized by leaders who clearly articulated how technology would advance Islamic values rather than compromise them. These entrepreneurs invested substantial personal time in learning digital tools, experimenting with approaches, and developing organizational digital culture, demonstrating that leadership commitment extended beyond financial resource allocation to genuine engagement.

Strategic external partnerships accelerated successful digitalization. Enterprises collaborating with Islamic business associations, technology consultants experienced in value-oriented business models, and fellow MSMEs navigating similar challenges achieved digitalization 2.3 times faster than those attempting independent implementation. These partnerships provided technical knowledge, implementation experience, peer learning opportunities, and emotional support during challenging transitions. Participation in government or NGO-sponsored digitalization programs also correlated with success, though programs explicitly addressing Sharia-based enterprise needs proved more effective than generic MSME programs.

Incremental adoption strategies proved more sustainable than attempted rapid transformation. Successful enterprises typically began with single platform mastery often social media marketing—before expanding to additional tools once initial platform became integrated into workflows and yielded demonstrable benefits. This phased approach enabled organizational learning, built employee confidence and capabilities gradually, and limited financial risk through

staged investment. In contrast, enterprises attempting simultaneous multi-platform adoption often experienced overwhelming complexity, inadequate resource distribution across initiatives, and eventual retreat to traditional methods after unsuccessful digital ventures.

## CONCLUSION

This research demonstrates that digital transformation offers substantial benefits for Sharia-based MSMEs when implemented within value-oriented frameworks that explicitly integrate technological capabilities with Islamic principles. Digitalized enterprises achieved 78% market reach expansion, 52% revenue growth, and 62% operational efficiency improvement while maintaining and often strengthening their commitment to Islamic values. Blockchain technology enhanced Sharia compliance transparency by 85%, building consumer trust and enabling premium pricing. These findings validate that technological advancement and Islamic values are complementary rather than contradictory when appropriately integrated.

However, successful digitalization requires addressing substantial barriers including limited digital literacy affecting 67% of enterprises, financial constraints impacting 58%, and value preservation concerns creating psychological resistance. The research establishes that technology alone is insufficient—comprehensive transformation encompassing human capital development, financial support, value-technology integration frameworks, and organizational culture change is essential. Incremental adoption strategies, strategic partnerships, and authentic commitment to transparency emerge as critical success factors distinguishing successful digital transformations from unsuccessful attempts.

The study contributes a novel value-oriented digitalization framework specifically designed for Sharia-based MSMEs, bridging gaps in literature that has inadequately addressed value-oriented business contexts. By demonstrating how Maqasid al-Shariah can guide technology adoption while enhancing business performance, the research advances both theoretical understanding and practical capabilities for navigating digital transformation in Islamic economic contexts. The findings have implications beyond Indonesia, relevant to the global Islamic economy valued at over USD 2 trillion annually and Muslim entrepreneurs worldwide seeking to leverage technology while maintaining authentic Islamic values.

## REFERENCES

- Alfarisi, S., Baga, L. M., & Komalasari, Y. (2022). Blockchain technology implementation for halal traceability system: A systematic review. *Journal of Islamic Accounting and Business Research*, 13(7), 1087-1109. <https://doi.org/10.1108/JIABR-11-2021-0299>
- Hassan, M. K., & Ahmad, A. U. (2023). Digital transformation of Islamic MSMEs: Opportunities and challenges. *International Journal of Islamic and Middle Eastern Finance and Management*, 16(2), 234-257. <https://doi.org/10.1108/IMEFM-05-2022-0183>

- Ibrahim, M. A., & Hasan, R. (2023). Enhancing Sharia compliance transparency in halal industry through fintech solutions. *Journal of Islamic Marketing*, 14(8), 2045-2067. <https://doi.org/10.1108/JIMA-09-2021-0289>
- Kurniawan, D. T., Suhartanto, D., & Dean, D. (2022). Digital transformation and MSME performance: The mediating role of entrepreneurial orientation. *Journal of Small Business Management*, 60(4), 876-902. <https://doi.org/10.1080/00472778.2021.1955125>
- Ministry of Cooperatives and SMEs of the Republic of Indonesia. (2024). *Indonesian MSME data and development 2023*. Retrieved from <https://www.kemenkopukm.go.id/data-umkm>
- Nurdin, N., Stockdale, R., & Scheepers, H. (2023). Organizational adaptation to sustain information systems: The case of Sharia-compliant Islamic banks. *Electronic Journal of Information Systems in Developing Countries*, 89(2), e12234. <https://doi.org/10.1002/isd2.12234>
- Rahman, M. K., Zailani, S., & Musa, G. (2023). Islamic tourism entrepreneurship: Building value-oriented competitive advantages. *Journal of Islamic Marketing*, 14(3), 678-702. <https://doi.org/10.1108/JIMA-03-2021-0094>
- Waharini, F. M., & Purwantini, A. H. (2023). Model of developing the competitiveness of small and medium enterprises through Sharia-based business models. *Journal of Islamic Accounting and Business Research*, 14(1), 132-151. <https://doi.org/10.1108/JIABR-02-2021-0071>
- Abdullah, A., & Yaakub, N. I. (2022). Fintech in Islamic social finance: Opportunities and challenges. *International Journal of Islamic Economics and Finance Studies*, 8(2), 98-117. <https://doi.org/10.25272/ijisef.958343>
- Ali, M., Puah, C. H., & Ayub, A. F. M. (2021). Blockchain-based halal traceability: A systematic review of the current trends and future research directions. *British Food Journal*, 123(12), 3988-4010. <https://doi.org/10.1108/BFJ-10-2020-0908>
- Aziz, S. A., Rahman, A. A., & Md Husin, M. (2022). The role of Islamic values in driving MSME digital transformation. *Journal of Islamic Management Studies*, 5(1), 45-67. <https://doi.org/10.12816/0059423>
- Fianto, B. A., Gan, C., Hu, B., & Roudaki, J. (2023). Equity financing and debt-based financing: Evidence from Islamic microfinance institutions in Indonesia. *Pacific-Basin Finance Journal*, 79, 102056. <https://doi.org/10.1016/j.pacfin.2023.102056>
- Hendratmi, A., Ryandono, M. N. H., & Sukmaningrum, P. S. (2020). Developing Islamic financial technology in Indonesia. *International Journal of Innovation, Creativity and Change*, 13(1), 1056-1073.
- Hidayat, S. E., Rafiki, A., & Nasution, M. D. T. P. (2021). Digital payment adoption among MSMEs during COVID-19: Implications for Islamic financial institutions. *Journal of*

*Islamic Monetary Economics and Finance*, 7(4), 789-812.  
<https://doi.org/10.21098/jimf.v7i4.1438>

- Muneeza, A., Arshad, N. A., & Tan, S. S. (2023). The application of blockchain technology in Islamic finance and its legal implication. *Journal of Financial Regulation and Compliance*, 31(1), 109-127. <https://doi.org/10.1108/JFRC-03-2022-0026>
- Rashid, A., Hassan, M. K., & Asutay, M. (2023). Islamic FinTech: Reimagining the future of Islamic finance. *Journal of Islamic Accounting and Business Research*, 14(5), 789-810. <https://doi.org/10.1108/JIABR-07-2022-0198>
- Sulistyo, A. B., Setyohadi, D. B., & Santosa, P. I. (2022). E-commerce adoption by Indonesian SMEs: The role of social media and innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 149. <https://doi.org/10.3390/joitmc8030149>
- Wibowo, A., Chen, S. C., Wiangin, U., Ma, Y., & Ruangkanjanases, A. (2021). Customer behavior as an outcome of social media marketing: The role of social media marketing activity and customer experience. *Sustainability*, 13(1), 189. <https://doi.org/10.3390/su13010189>
- Yusuf, M., & Ichsan, R. N. (2021). The role of Islamic fintech in improving financial inclusion in Indonesia. *Journal of Islamic Economic Laws*, 4(1), 108-130. <https://doi.org/10.23917/jisel.v4i1.12482>
- Zainuddin, M., Yasin, N. M., & Arif, I. (2020). Entrepreneurial orientation and firm performance in South Sulawesi Province, Indonesia: Mediating role of innovation. *Uncertain Supply Chain Management*, 8(4), 841-852. <https://doi.org/10.5267/j.uscm.2020.6.003>