# RISK MANAGEMENT IN SHARIA-BASED MSME FINANCING IN THE DIGITAL ERA

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***Abstract:*** This study aims to analyze sharia-based MSME financing which has a significant contribution to economic growth, especially in developing countries. Along with the development of the digital economy, sharia-based financing faces various new challenges, especially related to risk management. This article also aims to identify the types of risks faced by sharia-based MSME financing in today's digital era and formulate mitigation strategies that can be implemented. This study uses a qualitative approach by relying on literature studies and secondary data analysis. The results of the study reveal that credit, operational, technology, sharia compliance, and liquidity risks are the main challenges that need to be managed effectively. The use of technology, sharia audits, and strengthening the cybersecurity system are important steps in ensuring the sustainability and success of sharia-based MSME financing in the digital era.

***Keywords:*** Risk Management, Sharia Financing, MSMEs, Digital Economy, Fintech

## INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play an important role in the global economy, especially in developing countries such as Indonesia. MSMEs contribute more than 60% to the national gross domestic product (GDP) and provide employment for a large portion of the working population. As the backbone of the economy, the sustainability of MSMEs is highly dependent on the availability of affordable and sustainable access to financing. However, MSMEs often face challenges in obtaining financing from formal financial institutions due to a lack of collateral, complex administrative documents, and a high risk profile by conventional banking institutions.

Sharia financing is an important solution for MSMEs in the digital era because it offers a scheme that is in accordance with the principles of justice and partnership-based. Each type of sharia financing has a unique mechanism designed to meet the capital needs of MSMEs without burdening business actors with interest burdens. The table below summarizes several types of sharia financing and their main benefits in supporting the development of MSMEs in the midst of digitalization challenges and opportunities.

| Types of Financing | Description | Benefit |
|---|---|---|
| Mudarabah | Profit-sharing cooperation | Unsecured capital, encouraging innovation |
| Musharakah | Joint capital-based partnerships | Increase capital, expand network |
| Murabahah | Trading on margin | Access to capital goods, flexible installments |
| Ijarah | Lease productive assets | Use assets without large purchase fees |
| Qardhul Hasan | Welfare loans without remuneration | Capital assistance at no additional cost |

Source: ResearchGate - Alternative Sharia Financing for MSMEs

In this context, sharia-based financing has emerged as an increasingly relevant alternative. The sharia financing system prioritizes the principles of justice, transparency, and partnership that are in line with Islamic values. Unlike conventional financing which is interest-based (riba), sharia financing uses profit-sharing (mudharabah), partnership (musharakah), or buying and selling (murabahah). Although this system offers many advantages, risk management in sharia financing also has its own challenges. These risks include credit risk, operational risk, risk of compliance with sharia principles, and market risks that can affect the stability and success of financing management.

Along with the development of technology, the digital era has brought significant transformations in various aspects of life, including in the financial sector. Digitalization has opened up new opportunities for MSMEs to access sharia-based financing through digital platforms such as sharia fintech. This platform offers convenience, efficiency, and inclusivity, which allows MSMEs to obtain financing with a faster and more transparent process. However, on the other hand, digitalization also introduces various new risks that need to be well anticipated. Risks such as data security, potential fraud, market uncertainty, and technological errors are challenges that cannot be ignored.

Risk management in sharia-based MSME financing in the digital era is crucial to ensure the sustainability of a healthy and stable Islamic financial ecosystem. With the right risk management approach, MSME actors can not only overcome potential problems that arise, but also take advantage of digitalization opportunities optimally to support their business growth.

In addition, the digital era has brought major changes in the financial sector, including sharia financing. Digital technology, such as internet-based financial applications and electronic payment systems, has expanded access to financing for MSMEs that previously had difficulty accessing banking services. Sharia-based financial technology (fintech) platforms are also constantly evolving, providing faster, easier, and more efficient financing solutions. However, digitalization also presents new challenges in the form of technological risks, such as data leaks, cybersecurity, system failures, and reputational risks that can harm both Islamic financial institutions and customers.

Risk management is a very important aspect to ensure the sustainability of sharia financing in the digital era. Effective risk management not only aims to minimize potential losses, but also to increase customer confidence in the Islamic financial system. In the era of digital transformation that is full of dynamics, Islamic financial institutions need to develop risk management strategies that are able to anticipate technological and regulatory changes that continue to develop.

This study aims to analyze risk management in sharia-based MSME financing in the digital era. The main focus of the research includes the identification of the types of risks faced in MSME financing, risk mitigation strategies implemented by Islamic financial institutions, and the role of digital technology in increasing the effectiveness of risk management. By examining sharia-based risk management practices in the midst of technological advancements, it is hoped that this research can contribute to the development of policies, business strategies, and the improvement of Islamic financial literacy.

## LITERATURE REVIEW

### Risk Management in Sharia Financing

Risk management is the process of identifying, analyzing, mitigating, and controlling risks to ensure the operational stability of Islamic financial institutions.
In the context of sharia financing, the main risks include:

a. Credit risk, is a challenge related to the inability of MSMEs to meet payment obligations, which is often exacerbated by the lack of historical data for creditworthiness assessment.
b. Sharia risks arise when there is a discrepancy with sharia principles, such as the use of inappropriate contracts, which can affect the integrity of Islamic financial institutions.
c. Operational risk: Disruption to a financial institution's internal systems or processes that involves failures in internal processes or system disruptions, which can slow down the institution's performance.

### MSMEs as an Object of Sharia Financing

MSMEs play an important role in the national economy, including in Indonesia. Based on data from the Ministry of Cooperatives and SMEs, MSMEs contribute more than 60% of GDP and provide jobs for the majority of the workforce. However, MSMEs often face obstacles in accessing financing from formal financial institutions due to the lack of collateral or collateral, high risk profile, low financial literacy, especially related to Islamic finance.

Sharia-based financing offers solutions with a more flexible and partnership-based scheme. Research by Setyawan & Kusuma (2019) states that the mudharabah and musharakah models can be a suitable financing solution for the needs of MSMEs, especially in supporting business expansion.

**Sharia-Based Fintech as an Innovation in MSME Financing**

Digitalization opens up great opportunities in the development of sharia financing for MSMEs through financial technology (fintech). Sharia-based fintech integrates sharia principles with technology to provide more inclusive and efficient financing services. Some of the key features of sharia fintech:

a. Ease of Access: MSME actors can apply for financing online without having to come to the bank.
b. Process Efficiency: The verification and risk analysis process is carried out with the help of artificial intelligence and big data.
c. Financial Inclusion: Expanding financial services to groups previously unreachable by conventional banking.

According to Bank Indonesia (2021), platforms such as Ammana and Ethis have proven the effectiveness of sharia fintech in supporting MSME financing, especially in remote areas.

**Challenges and Risk Management Strategies in the Digital Era**

Digitalization brings new challenges in managing sharia financing risks:

a. Technology Risk: System failure, lack of technology compatibility, or mismatch with user needs.
b. Cybersecurity Risk: The threat of cyberattacks or leaks of customer data.
c. Regulatory Risk: Non-compliance with the ever-evolving regulation of Islamic fintech.

Strategies that can be implemented to manage these risks include:

a. Improved Security System: Uses encryption technology and strict supervision of data security.
b. Digital Education and Literacy: Providing training to MSME actors on the use of sharia-based digital platforms.
c. Collaboration with Regulators: Ensuring that all digital services comply with applicable regulations, including sharia principles.
d. Risk Diversification: Building a financing portfolio that covers various MSME sectors to reduce dependence on one specific sector.

## METHOD

This study uses a qualitative method with a descriptive approach. The research was conducted through literature studies and secondary data analysis to identify and understand risk management in sharia-based financing in the digital era. Research data is collected from secondary sources such as scientific journals, annual reports of Islamic financial institutions, policy documents, and related publications from regulatory institutions such as the Financial Services Authority (OJK) and the National Sharia Council (DSN-MUI). The data source was selected based on its relevance to the research topic, especially those that discuss sharia-based MSME financing, risks in Islamic banking, and the adoption of digital technology. The data analysis process is carried out using the thematic analysis method. The collected data is reduced to find the main themes related to the types of risks faced in sharia financing, the risk mitigation strategies implemented, and the role of digitalization in managing these risks. This analysis is carried out in depth to obtain a clear picture of the relevant issues.

The validity of the data is maintained through source triangulation, where information obtained from various documents and literature is compared to ensure its consistency and validity. This process is expected to produce comprehensive findings and provide applicable recommendations for the development of sharia-based financing risk management policies and practices in the digital era. The results of this study are expected to be able to contribute to the development of academic literature and risk management practices in sharia financing, especially in the context of digitalization.

## RESULT AND DISCUSSION

### 1. Risk Identification in Sharia-Based MSME Financing

Based on literature analysis and secondary data, this study finds that sharia-based MSME financing faces several main types of risks, especially in the digital era:

a. Credit Risk
   - The failure of MSMEs to fulfill payment obligations is the main risk. This is exacerbated by the lack of adequate credit historical data to conduct creditworthiness analysis.

b. Operational Risk
   - Failures in internal processes, such as document management or disruptions in technology systems, can hamper the operations of Islamic financial institutions.

c. Technology Risks
   - Cybersecurity threats, data leaks, and system failures are significant challenges in digital technology-based financing.

d. Sharia Compliance Risks
   - Non-compliance with sharia principles in the implementation of contracts can cause a loss of public trust and potentially cause sanctions from regulators.

e. Liquidity Risk
   - The mismatch between cash inflows and outflows can affect the ability of Islamic financial institutions to meet financing needs.

**2. The Role of Digital Technology in Risk Mitigation**

Digitalization plays an important role in helping Islamic financial institutions manage risk through:

a. Improved System Security
   - Implementation of blockchain technology and data encryption to protect sensitive information.

b. Use of Artificial Intelligence (AI)
   - Predictive analytics with AI to assess creditworthiness, detect potential default risks, and prevent fraud.

c. Digitalization of Operational Processes
   - The use of digital platforms to speed up the verification process and financing distribution.

d. Monitoring Real-Time
   - Technology allows real-time monitoring of MSME performance, so that operational risks can be better managed.

**3. Risk Mitigation Strategies**

To manage the risks faced in sharia-based MSME financing in the digital era, some strategies that can be applied are:

a. Implementation of Comprehensive Risk Management Policy
   - Islamic financial institutions need to develop a risk management framework that includes comprehensive risk identification, evaluation, mitigation, and monitoring.

b. Sharia Compliance Audit
   - Conduct regular sharia audits to ensure that all financing processes and products are in accordance with sharia principles.

c. Increasing Digital Financial Literacy
   - Educate MSMEs about the importance of data security and how to utilize digital technology in managing their businesses.

d. Collaboration with Sharia Fintech
   - Partnerships with sharia-based fintech platforms can help expand access to financing and improve operational efficiency.

e. Strengthening Regulation and Supervision
   - Regulators need to develop policies that support the adoption of digital technologies while maintaining sharia principles and system security.

4. **Research Implications**

The findings of this study provide several important implications:

a. For Regulators
   - It is necessary to strengthen regulations related to the use of digital technology in sharia financing to protect the interests of all parties.

b. For Sharia Financial Institutions
   - The adoption of digital technology must be accompanied by strengthening the risk management system to ensure the sustainability of financing.

c. For MSMEs
   - Literacy in technology and Islamic finance needs to be improved so that MSMEs can take advantage of sharia-based financing optimally.

## CONCLUSION

This article discusses risk management in sharia-based Micro, Small, and Medium Enterprises (MSMEs) financing in the midst of the advancement of the digital era that brings new challenges and opportunities. The main focus of this study is the identification of various risks faced, mitigation strategies that can be applied, and the role of digital technology in risk management to ensure the sustainability of sharia financing. This study highlights that MSMEs, as the backbone of the economy, often face difficulties in obtaining access to financing from conventional financial institutions due to limited collateral and high risk profile. Sharia financing is a solution that is relevant to the principles of justice and partnership.

This scheme offers various contracts such as mudharabah (profit sharing), musyarakah (partnership), murabahah (buying and selling), and qardhul hasan (benevolent loans), which support the development of MSMEs in a more inclusive and equitable manner compared to interest-based financing. However, the implementation of sharia financing in the digital era faces several main risks. Credit risk remains a major challenge, where the failure of MSME actors to meet their obligations can occur due to the lack of adequate historical credit data. Operational risks include disruptions to internal processes, while technological risks include cybersecurity threats and data leaks. In addition, the risk of sharia compliance refers to the possibility of violating sharia principles in the implementation of contracts, which can reduce public trust and trigger regulatory sanctions. Liquidity risk is also a concern, where discrepancies between cash inflows and outflows can affect financial institutions' ability to support financing.

To manage these challenges, research underscores the importance of effective mitigation strategies. Improving system security through the use of blockchain technology and data encryption is an important step in protecting sensitive information. Artificial intelligence (AI) can be used for predictive analysis, credit risk, and fraud prevention. The use of digital platforms accelerates the verification and distribution process of funds, while real-time monitoring facilitates supervision of MSME performance.

Other mitigation strategies include the implementation of comprehensive risk management policies, periodic sharia audits, and strengthening regulations that encourage technology adoption while maintaining sharia principles. Education to MSME actors about digital financial literacy is also an important part of risk mitigation in the era of technological transformation.

Overall, this article concludes that effective risk management in sharia-based MSME financing requires synergy between financial institutions, regulators, and MSME actors. The use of safe and innovative technology, supportive regulations, and collaboration with sharia-based fintech are key to ensuring sustainable, fair, and inclusive financing in the digital era.

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