

# Risk Management in Bangladesh's Islamic Banking: A Decade of Growth, Challenges and Structural Vulnerabilities (2010–2023)

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## Abstract

This study examines the evolution and effectiveness of risk management frameworks in Islamic banking in Bangladesh from 2010 to 2023. Drawing exclusively on secondary data, including Bangladesh Bank reports, Fitch Ratings analyses, and authoritative industry publications, the study rigorously investigates deposit growth, liquidity coverage, excess liquidity, investment–deposit ratios, and market share as empirical proxies for systemic risk. The findings demonstrate that, despite notable expansion in deposits and assets, Islamic banks in Bangladesh are increasingly vulnerable due to persistent structural challenges in liquidity management, deposit mobilization, and regulatory adaptation. Critical weaknesses are identified in sharply declining liquidity coverage ratios (LCR), diminishing excess liquidity, and decelerating deposit growth compared to asset accumulation. The analysis further reveals that governance constraints, deficits in specialized human capital, and the limited availability of Shariah-compliant financial instruments undermine effective risk mitigation. To address these issues, the study recommends specific policy interventions: strengthening regulatory frameworks tailored to Islamic finance, advancing Shariah governance standards, and fostering the development of robust Shariah-compliant liquidity instruments to enhance systemic resilience. This research contributes to the academic literature by providing a longitudinal assessment of risk management in Islamic banking within the dynamic context of the Bangladeshi financial sector.

**Keywords:** Islami banking; risk management; liquidity coverage ratio; deposit growth; Bangladesh; Islamic finance

## 1. INTRODUCTION

Islamic finance has entered a new stage of growth following the global financial crisis. It offers a fairer, more efficient, and sustainable alternative to traditional banking. This change partly results from the weaknesses revealed in interest-based financial systems, which showed the need for stronger and ethically sound financial models. Islamic finance sets itself apart by focusing on equity-based, asset-backed funding, banning interest (riba), and discouraging speculative transactions (maysir) (Al-Jarhi, 2005; Usmani, 2002). Its risk-sharing methods, especially profit-and-loss sharing contracts, are seen as stabilizing features that can lower systemic risks and improve overall financial stability (Khan & Bhatti, 2008; Iqbal & Llewellyn, 2002).

These changes have led to higher standards for risk awareness and management. Regulators are focusing more on risk-sensitive capital adequacy rules and on assessing how institutions manage risk to ensure financial strength (Aziz, 2006). In Bangladesh, Islamic banking has expanded quickly since it started in the early 1980s, becoming a key part of the national financial system. Between 2010 and 2023, the sector saw significant growth in deposits, assets, and branch networks, showing a rise in customer demand. By 2023, total deposits in Islamic banks reached 443,403 crore BDT. This amount represented 22.4% of the country's total banking deposits, reflecting strong, ongoing public trust in Shariah-compliant financial products (Bangladesh Bank, 2024).

Despite this growth, the sector faces urgent liquidity issues. Recent reports show a sharp drop in liquidity coverage ratios (LCR) from 188.5% in 2021 to 58.7% in 2023, falling below the Basel III minimum requirement of 100% (Fitch Ratings, 2023). Excess liquidity has also plunged, falling nearly 67% in two years to 111.07 billion BDT in 2023. These trends show systemic weaknesses and highlight the need for better risk management measures to tackle liquidity and funding challenges.

This study aims to:

- Analyze the growth of Islamic banking regarding deposits, assets, and market share.
- Examine liquidity and funding risks, including LCR and trends in excess liquidity.
- Evaluate risk management methods and regulatory actions for financial stability.
- Identify gaps in policy and governance.

By providing long-term empirical analysis, this study significantly contributes to the discussion on Islamic banking risk management in Bangladesh. The research closely examines liquidity, investment, and deposit growth while critically assessing the policy and governance structures that affect sector stability. The structured approach includes a literature review, conceptual framework, methodology, empirical findings, policy analysis, and conclusion. The research enhances the understanding of risk management challenges and policy solutions in the changing world of Islamic finance in Bangladesh.

## 2. Literature Review

Islamic banking operates under Shariah-compliant contracts, including Mudarabah (profit-sharing), Musharakah (joint partnership), Murabahah (cost-plus financing), Salam (forward sales), Istisna' (manufacturing finance), and Ijarah (leasing). These contracts create specific financial and non-financial risks (Usmani, 2002; Khan, 2010). Financial risks include credit risk from defaults in asset-backed or profit-and-loss-sharing contracts, liquidity risk from the limited availability of Shariah-compliant instruments, and market risk related to changes in profit rates and asset prices (Archer & Karim, 2007; Hassan & Bashir, 2003; IFSB, 2015). Non-financial risks are also significant. These risks involve operational failures, Shariah non-compliance, reputational harm, and weaknesses in governance, especially in boards or Shariah supervisory structures (Dusuki, 2008). The International Financial Services Board (IFSB, 2005; 2015) stresses the importance of strong risk management systems, which should include identifying, measuring, monitoring, and controlling Shariah-specific risks. However, implementing these systems in emerging economies faces challenges like regulatory mismatches, a shortage of skilled professionals, and a lack of Shariah-compliant liquidity instruments (Ahmed, 2011; Karim & Archer, 2013). These issues are worsened by limited Islamic interbank and sukuk markets, fragmented governance, and regulations that focus on conventional banking, all of which hinder effective risk management.

## 2.1 Risk Management in Emerging Markets:

The emerging economies face unique challenges in the risk management of Islamic banking. The lack of liquidity instruments and the absence of interbank markets make it difficult to cope with short-term stress (Iqbal & Mirakhor, 2007). The decentralized Shariah boards and non-consistent compliance practices pose governance risks (Obaidullah, 2005). In addition, Basel III and other regulations were primarily formulated for interest-based banking. As a result, Islamic banks lack sufficient regulation in important areas such as liquidity coverage, asset quality, and operational resilience (Haneef & Karim, 2010; Sarker, 2020). Studies in South Asia have identified common stress indicators such as a decline in the liquidity coverage ratio, a decrease in excess liquidity, and an increase in investment-to-deposit ratio mismatches, which point to systemic vulnerabilities (Jaffar & Haron, 2015).

## 2.2 Empirical Insights in Bangladesh:

In Bangladesh, the progress of Islamic banking over the past decade has been impressive, marked by increases in deposits, assets, and market confidence. However, a significant challenge has been liquidity management, which stems from reliance on traditional financing instruments and a lack of Shariah-compliant liquid assets. Ahmed (2011) and Fitch Ratings (2023) reported that the liquidity coverage ratios (LCRs) were below the Basel III requirements, and excess liquidity buffers were decreasing, indicating a heightened level of systemic risk. Additionally, the investment-to-deposit ratios in some banks showed a sharp increase, suggesting that asset deployment has grown much faster than funding. Governance issues and a shortage of skilled personnel in risk analysis further complicate effective risk management (Karim & Archer, 2013).

## 2.3 Global Perspectives and Shariah Governance:

International studies indicate that robust Shariah governance, risk-sensitive capital frameworks, and innovative liquidity instruments, such as sovereign sukuk, are essential for managing systemic risk in Islamic banks (Archer & Karim, 2007; IFSB, 2015). Malaysia and the United Arab Emirates have established centralized Shariah boards and sukuk markets to enhance liquidity and compliance, providing models for emerging economies such as Bangladesh (Dusuki, 2008; Khan, 2010). However, the implementation of these practices is constrained by the depth of local markets, regulatory capacity, and the availability of professionals trained in Islamic finance risk management.

## 2.4 Research Gap:

The literature consistently indicates that, although Islamic banks possess structural resilience and provide ethical, asset-backed financing, they encounter systemic risks related to liquidity, governance, and regulatory alignment. In Bangladesh, these challenges are particularly acute, as evidenced by declining liquidity coverage ratios (LCRs), reduced excess liquidity, and elevated investment-to-deposit ratios, all of which contribute to increased short-term risk exposure. Recent research underscores the necessity for empirical, longitudinal studies that integrate liquidity, deposit, investment, and governance indicators to comprehensively evaluate risk management effectiveness. This study addresses this gap by examining Islamic banking risk frameworks in Bangladesh from 2010 to 2023, combining quantitative indicators with policy analysis.

## 3. Conceptual Framework and Hypotheses

The study evaluates the effectiveness of risk management by looking at deposit growth, LCR, excess liquidity, investment-deposit ratios, and market share. These indicators show liquidity, funding, and overall stability.

- Deposit Growth: Measures public confidence and how well funding meets needs.
- LCR: Assesses the ability to handle short-term liquidity issues.
- Excess Liquidity: Evaluates the capacity to absorb shocks.
- The Investment-Deposit Ratio (IDR): Examines how asset growth relates to stable funding.

**The hypotheses considered include:**

- H1: Declines in LCR indicate increased liquidity risk.
- H2: Smaller excess liquidity reduces the ability to absorb risk.
- H3: Slower deposit growth compared to asset expansion signals systemic weaknesses.
- H4: Policy reforms and changes in regulations reduce risk over time.

**4. Methodology**

**4.1 Data Collection:**

Secondary panel data from 2010 to 2023 were collected from Bangladesh Bank (2024) for deposits, LCR, investments, and market share, Fitch Ratings (2023) for liquidity and risk insights, and industry publications for market trends, providing a comprehensive view of Islamic banking performance and stability in Bangladesh.

**4.2 Variables:**

Variable	Definition
Deposit Growth	Total deposits (BDT crore) & YoY %
LCR	High-quality liquid assets / net cash outflows (%)
Excess Liquidity	Liquidity beyond statutory reserve requirements (BDT crore)
Investment–Deposit Ratio (IDR)	Total investment / total deposits (%)
Market Share	Islamic bank deposits / total bank deposits (%)

**4.3 Analytical Techniques:**

- Descriptive Trend Analysis: Identify growth patterns and vulnerabilities
- Comparative Evaluation: Compare Islamic and conventional banks
- Panel Data Analysis: Regression models to assess determinants of LCR and excess liquidity

**Panel Regression Model:**

To examine the determinants of liquidity resilience in Islamic banks, the following panel regression model is estimated:

$$LCR_{it} = \alpha + \beta_1 Deposit\ Growth_{it} + \beta_2 IDR_{it} + \beta_3 Market\ Share_{it} + \epsilon_{it}$$

Where:

LCR<sub>it</sub> = Liquidity Coverage Ratio of bank *i* in year *t*

$\alpha$  = Constant term

$\beta_1, \beta_2, \beta_3$  = Coefficients of explanatory variables

Deposit Growth<sub>it</sub> = Annual deposit growth rate of bank *i* in year *t*

IDR<sub>it</sub> = Investment to Deposit Ratio of bank *i* in year *t*

Market Share<sub>it</sub> = Market share of bank *i* in year *t*

$\epsilon_{it}$  = Error term

i= Individual Islamic bank

t= Time period (2010–2023)

## 5. Empirical Results

### 5.1 Deposit Growth:

Deposits in Islamic banks in Bangladesh have seen a significant increase, rising from BDT 78,450 crore in 2010 to BDT 443,403 crore in 2023, according to data from Bangladesh Bank. From June 2018 to December 2023, deposits in these banks grew by 90.5%. Additionally, their market share increased from 14.2% to 22.4%, highlighting their growing importance in the financial system. However, despite this rise in deposits, the growth rate has started to decelerate, dropping from double-digit figures in previous years to just 9.4% in 2023. (See table-1)

### 5.2 Liquidity Coverage Ratio:

The Liquidity Coverage Ratios (LCR) of Islamic banks in Bangladesh have shown a concerning trend of decline in recent years. According to data from the Bangladesh Bank and an analysis by Fitch Ratings, the LCR for Islamic banks rose from 138.2% in 2010 to 188.5% in 2021, well above the Basel III minimum requirement of 100%. However, this ratio sharply declined in the following years, falling to 87.7% in 2022 and further to 58.7% in 2023. This current rate is significantly below the minimum requirement and also lower than the average LCR of the conventional banking sector, which is 154.6%. The decline indicates tightening liquidity conditions, reduced high-quality liquid assets, and increased short-term funding pressures. (See table-2)

### 5.3 Excess Liquidity:

Islamic banks in Bangladesh have experienced significant changes in their excess liquidity over the years. Reports from Bangladesh Bank indicate that excess liquidity rose steadily from BDT 52.3 crore in 2010, reaching an all-time high of BDT 150.3 crore in 2021. This increase reflects that banks had a growing amount of surplus funds available beyond their operational and lending needs. However, this upward trend shifted after 2021. In 2022, excess liquidity decreased to BDT 134.1 crore, suggesting a change in how banks managed their funds. This decline continued into 2023, when excess liquidity fell further to BDT 111.07 crore, representing a notable reduction of approximately 67% over the last two years. Several factors may contribute to this decline. Changes in monetary policy, fluctuations in loan demand, and adjustments in banking strategies could all have an impact. The significant drop in excess liquidity implies that banks may have tightened their cash flow or increased their lending activities in response to evolving market conditions. This analysis highlights the changing dynamics of liquidity management within Islamic banks and its broader effects on the banking sector and the economy. (See table-3)

### 5.4 Investment–Deposit Dynamics:

Between 2010 and 2020, the Investment-Deposit Ratio (IDR) of Islamic banks in Bangladesh steadily increased from 70.1% to 77.8%. This trend indicates a consistent growth in investment relative to deposits. However, from 2020 to 2023, the IDR rose more sharply to 81.2%. This suggests that the banks are accelerating their asset deployment and financing activities in relation to deposit mobilization. It is important to consider this trend alongside the declining Liquidity Coverage Ratios (LCR) and the presence of excess liquidity in the banking system. (See table-4)

### 5.5 Panel Regression Analysis:

Variable	Coefficient ( $\beta$ )	Std. Error	t-Value	p-Value
Deposit Growth	0.62	0.12	5.17	0.000
IDR	-0.48	0.10	-4.80	0.001
Market Share	0.35	0.08	4.38	0.002
Constant	42.5	6.12	6.94	0.000

From the panel regression analysis, it is observed that the positive and significant effect of deposit growth and market share on the Liquidity Coverage Ratio (LCR) is 0.62 and 0.35, respectively ( $p < 0.01$ ), which indicates that increased deposits and market share are beneficial for improving liquidity reserves. However, the negative significant effect of the Investment-Deposit Ratio (IDR) on LCR is -0.48 ( $p = 0.001$ ), which indicates that excessive use of deposits for investment purposes increases liquidity stress. Therefore, the findings support that although increased deposit growth and market share are beneficial for improving liquidity resilience, increased IDR increases liquidity stress in Islamic banks.

### 6. Discussion

Empirical evidence indicates that the growth of Islamic banking in Bangladesh has been significant during the 2010s and early 2020s, primarily driven by increasing customer demand and the expansion of branch networks. However, despite this structural growth, risk management practices are facing mounting pressure. Key liquidity metrics, such as the Liquidity Coverage Ratio (LCR) and excess liquidity, have declined, and the growth of deposits has not kept pace with the expansion of investments. These trends highlight the underlying challenges in managing liquidity risk, which have been further exacerbated by a shortage of Shariah-compliant High-Quality Liquid Assets (HQLA) and the underdevelopment of the Islamic interbank market. This situation complicates banks' ability to fund short-term liabilities and withstand liquidity stress. Additional challenges include deficiencies in Shariah governance, shortages in human capital, and the limitations of conventional regulatory frameworks, all of which hinder effective risk management and governance. Consequently, the industry is faced with a paradox of strong structural growth, with increasing deposits, market share, and branch networks, but weakened resilience in managing liquidity risk, with a decline in LCR, excess liquidity, and rapid investment expansion. The major challenges are a shortage of Shariah-compliant HQLA, an underdeveloped interbank market, weak governance, inadequate regulatory adaptation, and a shortage of risk analytics capabilities.

### 7. Policy Implications

#### Based on empirical findings:

- **Develop Shariah-Compliant Liquidity Instruments:** The central bank and government must encourage the development of Islamic liquidity instruments, such as sovereign sukuk, which can be used as HQLA.
- **Enhance Regulatory Frameworks:** Basel III regulations and risk measures must be modified to suit the needs of Islamic banking and incorporate Shariah risk measures.
- **Strengthen Shariah Governance:** A unified Shariah governance body can minimize discrepancies and enhance risk management of Shariah compliance.

- Human Capital Development: Capacity building in Islamic finance risk practices is required to enhance the internal risk function.

## 8. Conclusion

The growth of the Islamic banking sector in Bangladesh from 2010 to 2023 has been impressive, reflecting the expansion of the country's economy. However, there are still significant challenges related to liquidity and risk management. The decline in Liquidity Coverage Ratios (LCRs), along with excess liquidity and an aggressive allocation of investments compared to deposits, indicates a heightened short-term liquidity risk that is not being effectively managed. Effective risk management is crucial for Islamic banks to ensure the quality of their assets, maintain predictable earnings, and implement Shariah-compliant strategies. By doing so, these banks can remain competitive in the market.

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