



## **HOW TO OVERCOME THE RISK OF ISLAMIC BANKS: EVIDENCE FROM INDONESIA**

**Asep Dadan Suganda<sup>1</sup>, Anita<sup>2</sup>, Soliyah Wulandari<sup>3</sup>**

UIN Sultan Maulana Hasanuddin Banten

<sup>1</sup>asep.dadan@uinbanten.ac.id

<sup>2</sup>anita.febi@uinbanten.ac.id

<sup>3</sup>soliyah.wulandari@uinbanten.ac.id

**Abstract:** Risk management is a crucial aspect of Islamic banking to ensure the sustainability and operational safety of banks and maintain the trust of customers and stakeholders. This article discusses the importance of risk management in the context of Islamic banking and analyzes the challenges faced by Islamic banks in managing risks. This research adopts a qualitative approach, with a focus on collecting in-depth descriptive and interpretative data. The study involves text analysis and case studies of Islamic banks in Indonesia. This article discussed the basic concepts of risk management in the context of Islamic banks, including risk identification, risk evaluation, and risk control. We explain the importance of comprehensive risk assessment and the use of appropriate risk management tools to address specific risks faced by Islamic banks. By analyzing these challenges, this article provides a comprehensive overview of risk management in Islamic banking and offers recommendations to enhance the capabilities of Islamic banks in effectively managing the risks. Finally, the author offers a model for overcoming the risk of Islamic banks with the Hexagonal Model consisting of two sides (internal and external) and six main cores: Education, Identification, Accountable, Guidelines, Research, and Technology.

**Keywords:** Risk Identification, Risk Evaluation, Risk Control, Stakeholder, Hexagonal Model.

## INTRODUCTION

Along with the development of time, the banking sector continues to grow rapidly, especially in Indonesia and generally in various countries around the world. Meanwhile, banking and its risks are two inseparable aspects. Courage is the benchmark for the emergence of both conventional and Islamic banks. Without the courage to take risks, banks as intermediary institutions would never exist. Furthermore, it can be understood that the emergence of banks is due to the courage to take risks, and banks are able to withstand various situations and conditions precisely because they dare to take risks. However, if these risks are not managed well, banks can experience failures that may lead to bankruptcy (OJK, 2023).

Islamic banking is growing not only in terms of value but also in terms of various variations and complexities of the products offered. The global financial crisis, on the one hand, has brought wisdom to the development of Islamic banking, including in Indonesia. People around the world, experts, and economic policymakers not only see this as an opportunity but also strive to implement Sharia principles correctly. Moreover, the prospects of Islamic banking are increasingly promising. Islamic banks in Indonesia are believed to continue to grow and develop. The development of the Islamic financial institution industry is expected to strengthen the stability of the national financial system. Such hope provides optimism, considering the rapid growth of the Islamic banking network in recent decades (OJK, 2022).

The implementation of risk management in Islamic banking in Indonesia cannot be delayed any longer and must be promptly managed according to the scale, the complexity of operations, and the

bank's ability in a healthy, consistent, and Sharia-compliant manner. Islamic banking requires adequate resources for risk measurement and identification, as well as the development of risk management techniques. In this regard, there is an urgent need to combine a solid understanding of Sharia aspects with strong knowledge of modern risk management techniques in order to develop innovative risk mitigation strategies (Miranti Kartika, Rosmanita, Prasetyo, Iwani Surya Putri, & Haidir, 2013).

Considering that the business activities of Islamic banking are not exempt from risks that can disrupt the bank's sustainability, banks are required to implement risk management both individually and in a consolidated manner. When looking at the various products and services of Islamic banking, which have their own characteristics, it requires functions of risk identification, measurement, monitoring, and control that are in line with the activities of Islamic banking. Therefore, the risk mitigation steps taken by Islamic banks must consider compliance with Sharia principles. In managing each functional activity, the bank's operations should be integrated into an accurate and comprehensive risk management system and process.

Since December 31, 2013, the functions, duties, and authorities for regulating and supervising financial services activities in the banking sector have been transferred from Bank Indonesia to the Financial Services Authority (*Otoritas Jasa Keuangan* or OJK). Therefore, the OJK has issued regulations regarding the implementation of risk management for Islamic commercial banks and Islamic business units. These regulations are stipulated in OJK Regulation Number 65/Pojk.03/2016, which refers to Law Number 21

of 2008 concerning Sharia Banking (State Gazette of the Republic of Indonesia Year 2008 Number 94, Supplement to State Gazette of the Republic of Indonesia Number 4867); as well as Law Number 21 of 2011 concerning the Financial Services Authority (State Gazette of the Republic of Indonesia Year 2011 Number 111, Supplement to State Gazette of the Republic of Indonesia Number 5253), (OJK, 2016).

Risk management in Islamic banking in Indonesia is very important and complex, due to the special characteristics and principles that underlie Islamic finance. The urgency of effective risk management arises from the need to comply with Sharia principles, maintain financial stability, and maintain customer trust. Several key issues underscore the importance of strong risk management in the context of Islamic banking.

Islamic banking operates amid the foundation of Sharia principles that prohibit usury and promote ethical financial practices. Failure to ensure compliance with these principles can lead to reputational damage and legal problems, it is therefore imperative to develop a comprehensive risk management strategy that is in line with these principles. Furthermore, Islamic banking faces a number of unique risks compared to conventional banking. The character of Islamic contracts, profit-sharing mechanisms, and restrictions on certain activities require specific risk assessments and specific mitigation strategies.

Besides that, Islamic financial products often involve complex structures, such as *Mudarabah* (profit-sharing), *Musharakah* (partnerships), and *Ijarah* (leases). This complexity can introduce operational, legal, and regulatory risks, and therefore requires a deep

understanding of these products and their associated risks. The absence of standard contracts and practices in Islamic finance can result in incompatibilities in risk management approaches between institutions. This challenge necessitates the establishment of a clear risk assessment framework to ensure effective risk mitigation.

## **LITERATURE REVIEW**

### **The Definition of Risk**

So many definitions of risk are available, among them, according to Ricky W. Griffin and Ronald J. Ebert, it is uncertainty about future events. Meanwhile, Joel G. Siegel and Jae K. Shim provide a definition of risk in three aspects: (i) a situation that leads to a set of specific outcomes, where the probabilities are known to the decision-maker; (ii) variations in profits, sales, or other financial variables; (iii) the likelihood of a financial problem affecting the operational performance or financial position of a company, such as economic risk, political uncertainty, and industry issues (Idroes, 2008).

Risk in its various forms and sources is an inseparable component of every activity. This is because the future is something that is very difficult to predict. No one in this world knows for sure what will happen in the future, even one second ahead. There is always an element of uncertainty that gives rise to risks (Ali, 2006). There are two terms that are often confused: uncertainty and risk. Some people consider them the same, while others see them as different. The difference lies in their management. Uncertainty refers to the understanding of unforeseen risks (unexpected risks), (Bramantyo, 2008).

According to the economic glossary, the risk is the possibility of experiencing losses or failures due to certain actions or events (Darmawan, 1984). Meanwhile, according to Darmawan, risk always exists because it involves the likelihood of negative consequences or losses, such as the possibility of loss, injury, fire, and so on (Hermawan, 2011).

In the context of banking, according to (Karim, 2010), the risk is a potential event, both anticipated and unanticipated, that has a negative impact on a bank's income and capital. On the other hand, Eddie Cade states that the definition of risk varies depending on its purpose (Karim, 2010). The accurate definition of risk from a bank's perspective is the exposure to income uncertainty. Meanwhile, Philip Best states that risk is a financial loss, whether direct or indirect. Bank risk refers to the exposure to the possibility of loss (exposure to the change of loss). In the context of banking, risk represents the potential occurrence of events that can result in bank losses (Ikatan Bankir Indonesia, 2016).

### **The Definition of Risk Management**

Risk management can be defined as a recurring process that involves analysis, planning, implementation, control, and monitoring of policies, as well as the measurement of security policy implementation. William defines risk management as an application of general management that aims to identify, measure, and address the causes and consequences of uncertainty within an organization (Williams, 1995). In the economic glossary, risk management is described as the management related to the effort to minimize, address,

and avoid the risks faced, such as accident prevention and improving corporate security (Daidumi, 1984).

Risk management has a strong focus on the identification and mitigation of risks. Its objective is to enhance the sustainable value of an organization. Risk management should be continuous and develop processes that align with the overall strategy of the organization and the strategy for implementation. Risk management should aim to address issues based on the methods used in conducting activities within an organization in the past, present, and future (Ikatan Bankir Indonesia, 2016).

According to POJK Number 65 of 2016, risk management is defined as a series of methodologies and procedures used to identify, measure, monitor, and control risks arising from all business activities of a bank. The objective of implementing risk management is to reduce various risks associated with selected areas to a level acceptable by society. This can include various types of threats caused by the environment, technology, humans, organizations, and politics. On the other hand, the implementation of risk management involves all available means for humans, particularly risk management entities (individuals, staff, and organizations), (OJK, 2016).

### **Sharia Banking Risk**

The study of risk management is indeed endless, including in the realm of Sharia banking. It is acknowledged that Sharia banks must pay attention to ways to mitigate risks in order to maintain competitiveness, profitability, and customer loyalty. Therefore, banks are making efforts to implement risk management, which is a

continuous process that requires a lot of thought, effort, and costs (Usman, 2015).

The most important aspect in implementing risk management is the adequacy of procedures and methodologies for managing risks, ensuring that the bank's business activities remain controlled within acceptable limits and beneficial for the bank. However, considering the differences in market conditions, structure, size, and complexity of banks' operations, there is no universal risk management system that applies to all banks. Therefore, each bank must build a risk management system according to the functions and organizational structure of risk management within the bank (Ikatan Bankir Indonesia, 2016).

The implementation of risk management is highly beneficial for both banks and banking supervisory authorities. For banks, it can increase share value, provide insights to bank management regarding potential future losses, improve systematic decision-making processes based on information availability, serve as a basis for more accurate measurement of bank performance, assess risks inherent in complex instruments or banking activities, and establish a robust risk management infrastructure to enhance the competitiveness of the bank. Meanwhile, for banking supervisory authorities, the implementation of risk management facilitates the assessment of potential losses faced by banks, which can affect bank capitalization and serve as a basis for determining strategies and supervisory focus (Ikatan Bankir Indonesia, 2016).

## **METHODS**



The objective of this research is to explain and analyze the risks faced by Islamic banks, particularly in Indonesia, by identifying the factors influencing Islamic bank risks and evaluating the risk management efforts undertaken by Islamic banks to address these risks. This research adopts a qualitative approach, with a focus on collecting in-depth descriptive and interpretative data. The study involves text analysis and case studies of Islamic banks in Indonesia. In the data analysis, the collected qualitative data from text analysis and case studies will be thematically analyzed using an inductive approach (Nugrahani, 2014). The qualitative data will be coded, categorized, and interpreted to identify patterns, themes, and relationships among variables related to Islamic bank risks. This analysis will provide in-depth insights into the risks faced by Islamic banks and the risk management efforts employed. Based on the purpose of this study, it can be described as a research framework:



**Figure 1: Research Framework**

Source: compiled from various sources

## RESULT AND DISCUSSION

### **Risk Identification**

According to the Financial Services Authority Regulation Number 65/POJK.03/2016 on the Implementation of Risk Management for Sharia Commercial Banks and Sharia Business Units, Article 3 states that it is mandatory to adjust risk management to the objectives, business policies, size, complexity of operations, and the bank's capabilities. The risks mentioned in the regulation include Credit Risk, Market Risk, Liquidity Risk, Operational Risk, Legal Risk, Reputation Risk, Strategic Risk, Compliance Risk, Yield Risk, and Investment Risk (OJK, 2016).

Credit risk is the risk arising from the failure of a customer or other parties to fulfill their obligations to the bank as agreed upon, including credit risk resulting from borrower default, credit concentration risk, counterparty credit risk, and settlement risk. This risk is commonly present in all banking activities that rely on the performance of counterparties, issuers, or borrowers. Credit risk can increase due to the concentration of credit exposure to specific industries, specific groups of borrowers, specific geographic regions, specific products, specific types of financing, or specific business fields. This risk is commonly known as credit concentration risk (OJK, 2016).

The indicators used to assess inherent credit risk are: (i) portfolio asset composition and level of credit concentration, (ii) credit quality and adequacy of provisions, (iii) loan growth strategy, and (iv) external factors. The criteria, underlying rationale, and indicators used can be explained in the following table (Ikatan Bankir Indonesia, 2016):

**Table 1. Credit Risk Assessment Indicators**

Criteria		Rationale	Indicator
Portfolio Composition	Asset	Main Categories of Bank Assets: Loans and Securities	The proportion of each asset type to total assets. The proportion of loans by quality to total loans.
Level of Concentration		Types of loans by industry sector. The concentration of securities. The materiality of funding provided to core borrowers and related parties.	The concentration of core borrowers, related parties, and industries to total loans and capital. The concentration of products (data source from the bank).
Funding strategy. Sources of funding origination.		Composition and concentration based on the bank's established strategy.	Is the target market associated with the bank's core business or product line? What is the impact on inherent risks?
Quality of funding. Adequacy of reserves.		Reflecting high inherent risks, and weak risk management. An indication that future bank losses may increase in the event of a business cycle change.	Low-quality assets and non-performing assets as a proportion of total assets and capital. Choose the ratio that is most suitable for the bank's characteristics.
External Factor		Macroeconomic conditions, interest rates, and exchange rates that affect inherent risks.	Information from stress testing results, and credit portfolios.

In Bank Indonesia Circular No. 6/23/DPNP of 2004 regarding the assessment of the soundness level of commercial banks, the parameters or indicators for evaluating credit risk are as follows:

**Table 2.** Weight of Composite Rating for Credit Risk

Components		
<b>Composite Rating</b>	<b>Weight</b>	<b>Explanation</b>
Rate 1	> 40 %	Very Healthy
Rate 2	> 30 % - < 40 %	Healthy
Rate 3	> 20 % - < 30 %	Healthy Enough
Rate 4	> 10 % - < 20 %	Unwell
Rate 5	< 10 %	Not Healthy

The percentage weight of the composite credit risk rating increases as the composite value improves, indicating the bank's better ability to manage credit risk.

The next risk is market risk, which refers to the risk on the balance sheet and administrative accounts, including derivative transactions, resulting from changes in market prices. This includes the risk of value changes in tradable or leasable assets, including option price changes. Market risk includes interest rate risk (benchmark interest rate risk), foreign exchange risk, equity risk, and commodity risk. The implementation of risk management for equity and commodity risks is mandatory for banks that consolidate with subsidiary companies.

Interest rate risk arises from both the trading book and banking book positions. The implementation of risk management for equity and commodity risks is mandatory for banks that consolidate with subsidiary companies engaged in securities. The assessment of quantitative and qualitative approaches to sensitivity factors to market risk includes evaluating components such as: (i) capital formed to cover interest rate fluctuation risks compared to potential losses resulting from adverse interest rate movements, (ii) capital or reserves

formed to cover exchange rate fluctuations compared to potential losses resulting from exchange rate fluctuations, and the ability to manage market risk (Syarif, 2013).

The parameters of the trading book portfolio risk profile, in accordance with SEBI No.13/24/DPNP dated October 25, 2011, can be measured using various ratio approaches, where higher ratios indicate higher inherent risks. Banks determine for themselves which calculation parameters are considered low, moderate, or high, accompanied by rational justifications. The parameters or indicators used are: (i) volume and composition of the portfolio, (ii) potential loss from interest rate risk in the banking book, (iii) business strategy and policies.

**Table 3.** Weighted Composite Rating of Market Risk Components

<b>Composite Rating</b>	<b>Weight</b>	<b>Explanation</b>
Rate 1	12 %	Very Healthy
Rate 2	< 12 % - 10 %	Healthy
Rate 3	< 10 % - 8 %	Healthy Enough
Rate 4	< 8 % - 6 %	Unwell
Rate 5	< 6 %	Not Healthy

Source: Bank Indonesia Regulation on Institutional Assessment of Bank Health Level Codification

Next is liquidity risk, which is the risk arising from the bank's inability to meet its maturing obligations from cash flow sources and/or high-quality liquid assets that can be readily monetized, without disrupting the bank's activities and financial condition. Liquidity risk is also referred to as funding liquidity risk and market liquidity risk (Ikatan Bankir Indonesia, 2016).

When assessing the inherent risk of liquidity risk, the parameters/indicators used are as follows: i. Funding liquidity risk: The bank's inability to meet obligations from cash flow sources and repo liquid assets without disrupting the bank's activities and financial condition. ii. Market liquidity risk: The bank's inability to liquidate assets without incurring material discounts due to the absence of an active market or market disruptions.

The assessment of quantitative and qualitative approaches to liquidity factors is conducted through the evaluation of components such as i. Liquid assets are less than one month compared to liquid liabilities less than one month. ii. The ratio of maturity mismatch within a one-month period. iii. Loan to Deposit Ratio (LDR) and Loan to Funding Ratio (LFR). iv. Projection of cash flow for the next three months. v. Dependency on interbank funds and core depositors. vi. Liquidity policy and management (Assets and Liabilities Management - ALMA). vii. Bank's ability to access money markets, capital markets, or other sources of funding. viii. Stability of third-party funds (demand deposits).

Meanwhile, the parameters used are i. Composition of assets, liabilities, and administrative account transactions. ii. Asset and liability concentration. iii. Vulnerability to funding needs. iv. Access to sources of liquidity funding.

The liquidity risk assessment indicator is the LDR (Loan to Deposit Ratio), which is obtained by comparing the total loans granted to the total Third-Party Funds (DPK). A higher LDR value indicates a lower liquidity capacity of the bank, while a lower LDR value indicates a better liquidity capacity of the bank (Ikatan Bankir Indonesia, 2016).

**Table 4.** Bobot Peringkat Komposit Komponen LDR

<b>Composite Rating</b>	<b>Weight</b>	<b>Explanation</b>
Rate 1	< 50 % - < 75 %	Very Healthy
Rate 2	75 % - < 85 %	Healthy
Rate 3	85 % - < 100 %	Healthy Enough
Rate 4	100 % - < 120 %	Unwell
Rate 5	> 120 %	Not Healthy

Source: Bank Indonesia Circular No. 6/23/DPNP 2004

Furthermore, operational risk is the risk arising from inadequate or failed internal processes, human errors, system failures, and/or external events that impact a bank's operations. The sources of operational risk can include human resources, processes, systems, and external events. Events classified as operational risks follow the Basel II categories: a) Fraud internal; such as intentionally false reporting, or employee misconduct that harms the bank. b) Fraud external; such as robbery, check forgery, data breaches by external perpetrators, and disruptions to the bank's computer systems by external hackers. c) Employment practices and workplace safety; such as violations of health and safety regulations, labor union activities, customer accidents at bank premises, and various claims resulting from imperfect operational practices, d) Clients, products, and business practices; examples include breaching customer confidentiality rules, unauthorized use of bank accounts for trading activities, money laundering, selling unofficial bank products without proper approval, and so on, e) Damage or theft to physical assets; such as property damage caused by natural disasters and terrorism, f) Business disruption and system failures; such as damage to information system facilities, both software and hardware, issues with communication

systems and utilities, g) Errors in execution, delivery, and process management; such as data input errors, failures in collateral management, inadequate legal documentation, password misuse, and issues with vendors (Ikatan Bankir Indonesia, 2016).

Operational risk management can be considered effective when a bank has the ability to identify the above-mentioned risks and other risks. The process of identifying operational risks should take place throughout the organization and can be done gradually according to the organizational hierarchy.

Next is legal risk. This risk arises from legal claims and/or weaknesses in legal aspects. This risk arises, among other things, due to the absence of supporting legislation or weaknesses in agreements, such as failure to meet valid contract requirements or inadequate collateral. In assessing legal risk, the parameters/indicators used are; a) litigation factors, including the number of claims filed compared to the bank's capital; the magnitude of losses resulting from legally binding court decisions compared to the bank's capital; the basis and party filing the claims against the bank; legal actions taken by the bank; the likelihood of similar claims arising due to standardized agreements and estimated losses compared to the bank's capital, b) Weaknesses in agreements, which can lead to future problems or disputes and potential legal risks for the bank; failure to meet validity requirements of agreements; weaknesses in agreed-upon clauses or conditions that cannot be fulfilled by the debtor; parties' understanding of the agreement, particularly regarding the risks involved in complex transactions using terms that are not easily understood by the general public; inability to enforce the agreement, either partially or entirely;



availability of supporting documents related to the bank's agreements with third parties; updating and reviewing the use of standard agreements by the bank or an independent party; use of Indonesian law and determination of the dispute resolution forum in the agreements made by the bank. iii. Unavailability or changes in the legal system; the quantity and nominal value of bank products not clearly regulated by legislation, particularly products with a high level of complexity compared to the bank's capital; the use of outdated standard agreements despite changes in best practices or legislation; the absence of relevant legislation, especially for bank-owned products or transactions, which may result in future disputes and potential legal risks (Ikatan Bankir Indonesia, 2016).

Furthermore, reputational risk is the risk resulting from a decrease in the level of stakeholder trust stemming from negative perceptions of the bank. One approach used to categorize sources of reputational risk is through indirect (below the line) and direct (above the line) factors. In assessing reputational risk, the following parameters or indicators are commonly used: a) Reputation of bank owners and affiliated companies; credibility of bank owners and reputation-related incidents of bank owners and companies. b) Business ethics violations; Transparency of financial business information and collaboration with other stakeholders; Complexity of bank products and business collaborations, the number and level of customer usage of complex bank products, and the number and materiality of bank collaborations with business partners: Frequency, materiality, and exposure to negative bank news, types of media and scope of coverage; Frequency and materiality of customer complaints

measured during the assessment period. c) Low-rated reputation; during the assessment period, there is no negative reputation impact from bank owners and affiliated companies; Potential business ethics violations by the bank are considered minimal; Bank products are relatively simple and easily understood by customers, reducing the likelihood of reputation risk; Limited collaborations with business partners, reducing the likelihood of disputes; The frequency of negative news is considered minimal and not materially significant with limited coverage; The frequency of customer complaints is assessed as low and not material (Ikatan Bankir Indonesia, 2016).

Strategic risk is the risk arising from a bank's failure to make appropriate decisions and/or the implementation of strategic decisions, as well as the failure to anticipate changes in the business environment. Sources of strategic risk include weaknesses in the strategy formulation process, inaccuracies in strategy formulation, inaccuracies in strategy implementation, and the failure to anticipate changes in the business environment. In assessing strategic risk, the following parameters/indicators are used: a) Bank's business strategy, b) Bank's business position, c) Achievement of the bank's business plan (Ikatan Bankir Indonesia, 2016).

Assessment of parameters measuring whether the establishment of strategic goals by the Board of Directors is supported by the internal conditions of the bank's business environment, such as: i. Vision, mission, and business directions targeted by the bank. ii. Organizational culture, particularly if the implementation of strategic goals requires organizational structural changes and alignment of business objectives. iii. Organizational capacity factors such as human

resources, infrastructure, and information management technology systems. iv. Risk tolerance level, which refers to the financial capacity of the bank to absorb risks.

In this assessment of parameters, the main objective is to evaluate the readiness and support of the bank's internal conditions within its business environment for the establishment of strategic goals by the Board of Directors. This involves assessing the vision, mission, business directions, organizational culture, organizational capabilities, and risk tolerance level as crucial factors influencing the implementation of the bank's business strategy. Meanwhile, for the external factors, they can be assessed based on: macroeconomic conditions, technological developments, and the level of business competition.

Next, Compliance risk is the risk that arises from a bank's failure to comply with and/or implement applicable laws and regulations. The sources of compliance risk include non-compliant behavior, both legal and organizational, towards the applicable provisions and business ethics. Among the parameters or indicators for assessing compliance risk are the following: a) The type and significance of violations committed; The scope of violations refers to violations of applicable regulations and commitments to Bank Indonesia, including the sanctions imposed for violations committed by the bank. b) The frequency of violations committed or the compliance track record of the bank: Frequency is more historical in nature, looking at the bank's compliance trend over the past 3 years to determine whether the types of violations committed are recurring or if significant improvements

have not been made by the bank to rectify the errors (Ikatan Bankir Indonesia, 2016).

Another risk is the Rate of Return Risk, which is the risk arising from changes in the rate of return paid by the Bank to customers due to changes in the rate of return received by the Bank from fund placements. This risk can influence the behavior of third-party fund customers. There are three indicators or parameters used to assess this risk:

- a) Third-Party Funds Composition. Non-Core Deposits are demand deposits, savings accounts, and deposits that are not guaranteed by the Deposit Insurance Agency (with a nominal value greater than Rp. 2 billion). Meanwhile, Total Third-Party Funds (TPF) refer to all non-bank third-party funds, including demand deposits, savings accounts, and deposits.
- b) Bank's Strategy and Performance in Generating Profit/Income.

$$NPF = \frac{\textit{Problematic Financing}}{\textit{Total Financing}}$$

Problematic financing refers to financing provided to non-bank third parties that have poor quality, are doubtful, or are non-performing. Meanwhile, total financing refers to financing provided to non-bank third parties.

$$ROA = \frac{\textit{Profit before Tax}}{\textit{Average Total Assets}}$$

Profit before tax refers to the profit as recorded in the bank's income statement for the current fiscal year. For example, for the position in June, the accumulated profit as of June is calculated by dividing it by 6 (six) and multiplying it by 12

(twelve). The average total assets refer to the average total assets in the bank's financial statements. For example, for the position in June, it is calculated by summing the total assets from January to June and dividing it by 6 (six).

- c) Behavior of Third-Party Fund Customers. The correlation between the rate of return on *Mudharabah* deposits and the interest rate on conventional deposits. To determine the relationship between the interest rate of conventional banks and the return provided by Islamic banks to customers for one-month deposits. The actual profit distribution on bank deposits based on the agreed term compared to the profit distribution/interest from other Islamic banks or conventional banks. Comparing the profit distribution provided by the bank on deposits for each term to the profit distribution provided by other Islamic banks or conventional banks on the same instrument. The actual profit distribution on bank deposits compared to other instruments. Comparing the profit distribution provided by the bank on deposits for each term to the profit distribution provided by other instruments (such as sukuk, mutual funds, and bonds).

Lastly, the Equity Investment Risk is the risk arising from the bank's exposure to the business losses of customers financed through profit-sharing-based financing, whether using the net revenue sharing method or the profit and loss sharing method. Equity Investment Risk occurs when the bank provides profit-sharing-based financing to customers and bears the risk of their business losses (profit and loss sharing method). In this situation, the profit-sharing calculation is not

solely based on the customer's income or sales but is calculated from the business profits generated by the customer. If the customer's business goes bankrupt, the principal amount of financing provided by the bank will not be recovered. Additionally, the profit-sharing calculation can also use the net revenue sharing method, where the profit-sharing is calculated based on revenue after deducting capital (OJK, 2016).

### **Risk Evaluation**

This assessment of the quality of risk management implementation reflects the adequacy of risk control systems. The assessment aims to determine the effectiveness of the bank's risk management implementation in accordance with the principles of general risk management. The implementation will vary significantly depending on the size, complexity, and level of risk acceptable to the bank. In assessing the quality of risk management implementation, there are four interrelated aspects:

- a) Risk Governance: This includes evaluating the formulation of risk appetite, risk tolerance, and the adequacy of active oversight by the Board of Commissioners and the Board of Directors.
- b) Risk Management Framework: This involves evaluating the adequacy of organizational structures that support effective risk management, including clarity of authority and responsibility. It also assesses the adequacy of risk management policies, procedures, and risk limit setting aligned with the risk management strategy in line with risk appetite and risk tolerance.
- c) Risk Management Process, Adequacy of Human Resources, and Information Management Systems: This includes evaluating the

identification, measurement, monitoring, information management systems, and risk control processes. It also assesses the adequacy of human resources in terms of quantity and quality to support the effectiveness of the risk management process.

- d) The adequacy of risk control systems, taking into account the characteristics and complexity of the bank's operations, includes evaluating the adequacy of the Internal Control System (ICS), including a review of the risk management framework and processes by an independent unit (independent review). The assessment of the quality of risk management implementation is conducted for eight types of risks, namely: credit risk, market risk, liquidity risk, operational risk, legal risk, strategic risk, compliance risk, and reputation risk. Each risk is categorized into five ratings, such as:

**Table 5.** Risk Ranking

<b>Ranking</b>	<b>Explanation</b>
1	Strong
2	Satisfactory
3	Fair
4	Marginal
5	Unsatisfactory

### **Risk Control for Sharia Banking**

The way Indonesia manages risks in Islamic banks is through a comprehensive framework that encompasses various aspects of risk management. This includes:

- a) **Regulatory Framework:** The regulatory authorities in Indonesia, such as Bank Indonesia (the central bank) and the Financial Services

Authority (OJK), establish and enforce regulations specific to Islamic banks. These regulations cover areas such as capital adequacy, liquidity management, risk management, governance, and Shariah compliance.

- b) **Shariah Governance:** Islamic banks in Indonesia have dedicated Shariah supervisory boards or committees that ensure compliance with Shariah principles in all aspects of their operations. These boards provide guidance, review products and services, and ensure adherence to Islamic principles.
- c) **Risk Management Framework:** Islamic banks in Indonesia are required to have a robust risk management framework that identifies, assesses, and manages various risks they face. This includes credit risk, market risk, operational risk, liquidity risk, and Shariah compliance risk. The risk management framework includes policies, procedures, risk measurement tools, and monitoring mechanisms.
- d) **Capital Adequacy:** Islamic banks in Indonesia must comply with the capital adequacy requirements set by the regulatory authorities. These requirements ensure that banks have sufficient capital to absorb potential losses and maintain financial stability.
- e) **Supervision and Monitoring:** Bank Indonesia and OJK conduct regular supervision and monitoring of Islamic banks to ensure compliance with regulations, assess risk management practices, and maintain the stability of the banking system. This includes on-site inspections, off-site monitoring, and reporting requirements.
- f) **Training and Capacity Building:** Efforts are made to enhance the knowledge and skills of Islamic banking professionals through

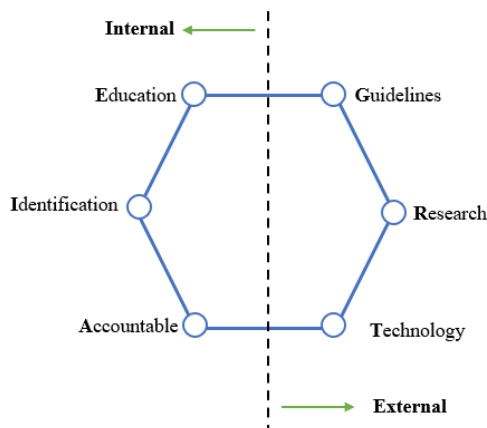


training programs and capacity-building initiatives. This ensures that bank employees have the necessary expertise to effectively manage risks in accordance with Shariah principles.

Overall, the management of risks in Islamic banks in Indonesia involves a combination of regulatory oversight, Shariah governance, robust risk management frameworks, and ongoing supervision to ensure the stability and integrity of the Islamic banking sector.

### **Hexagonal Model in Overcoming Islamic Bank Risk**

After observing and analyzing the data obtained, the authors can provide a design model for risk mitigation in Islamic banking, especially in Indonesia and generally in this world. It is a Hexagonal Model consisting of 2 (two) sides (internal and external) and 6 (six) main cores which are the basis for risk mitigation formulated by the author, which is expected to minimize the risks that arise in the operations of Islamic banks. These six elements are Education (E), Identification (I), Accountable (A), Guidelines (G), Research (R), and Technology (T) as can be seen in the following figure:



**Figure 2: Hexagonal Model for Risk Mitigation**

Source: designed by author from various sources

The internal side that the author designed for overcoming the risk consists of 3 main elements; Education, Identification and Accountable. Through education and training, it is expected to yield a deeper understanding of the unique risks in Sharia-compliant banks in Indonesia, as guided by Sharia principles. This includes *ribawi* risks (risks related to transactions involving goods and services prohibited by Sharia, such as alcohol or gambling) and *non-ribawi* risks (risks not prohibited by Sharia, such as market and credit risks). With an increased focus on education and training for human resources in Islamic banking risk management, both academic institutions and training organizations collaborate with Islamic financial institutions to train the workforce with a profound understanding of specific risks in Islamic finance.

Identifying risks in Islamic banks involves the process of recognizing and analyzing potential threats that can impact the performance and stability of the bank within the context of Sharia principles. It is important to note that risk identification is an ongoing process involving continuous observation and in-depth analysis. Islamic banks should have a dedicated team or department responsible for risk management that can assist in identifying, measuring, and effectively managing risks in accordance with Sharia principles.

The next element is the commitment to transparency and accountability. Islamic banks are increasingly committed to enhancing transparency and accountability in risk reporting. This benefits all stakeholders, including customers and regulators, in understanding how risks are identified, managed, and mitigated.

Furthermore, from the external side, there are 3 other important elements in risk mitigation in Islamic banking, such as Guidelines, Research, and Technology. Updated regulations and guidelines from the government and financial regulatory institutions have issued more detailed regulations and guidelines concerning risk management in Islamic banking. This step aims to establish a stronger framework for managing risks and enhancing transparency within this sector.

In addition, Islamic banks have developed specific models and methodologies to measure and manage risk according to sharia principles. This requires a sensitive approach to the prohibition of usury and the adoption of a unique profit-sharing mechanism in Islamic financial products. Therefore, various research is needed related to the operational risks and management of Islamic banks.

Lastly, technology as the important external side in risk mitigation plays a substantial instrument. Technology and innovation also play a pivotal role in the development of risk management in Islamic banking. The use of financial technology (fintech) and cybersecurity solutions aids in managing operational risks and information security.

## **CONCLUSION**

Various cases of bankruptcies in banks and non-bank financial institutions usually occur due to negligence in managing risks. Therefore, risk management in both conventional and Islamic banking is crucial to be well-managed in order to minimize arising risks. According to Financial Services Authority Regulation No. 65/POJK.03/2016 on the Implementation of Risk Management for Sharia Commercial Banks and Sharia Business Units, Article 3

stipulates that risk management should be tailored to the objectives, business policies, size, complexity, and capabilities of the bank. The risks mentioned in the regulation include; Credit Risk, Market Risk, Liquidity Risk, Operational Risk, Legal Risk, Reputation Risk, Strategic Risk, Compliance Risk, Rate of Return Risk, and Investment Risk as discussed in the above description. Furthermore, for risk evaluation, each Islamic bank must carry out several evaluations such as risk governance, risk management framework, risk management process, and adequacy of the risk control system by taking into account the characteristics and complexity of the bank's business. In addition, risk control can apply several ways such as; Regulatory Framework, Shariah Governance, Risk Management Framework, Capital Adequacy, Supervision and Monitoring, and also Training and Capacity Building which has been explained above.

Overall, the developments in risk management in Indonesian Islamic banking reflect a commitment to addressing the unique challenges of this industry. The focus on deeper comprehension of Sharia principles, the development of suitable models and methodologies, as well as cross-sector collaboration are essential steps taken to ensure sustainable growth and stability in Islamic banking. In addition, the model for overcoming the risk of Islamic banks with the Hexagonal Model consisting of two sides (internal and external) and six main cores: Education, Identification, Accountable, Guidelines, Research, and Technology was expected to be used as a reference in mitigating the risks that arise in the management and operations of Islamic banks in Indonesia in particular and in the world in general.

## REFERENCES

- Abdul Halim Usman. 2015. *Manajemen Strategis Syariah; Teori, Konsep & Aplikasi*. Jakarta: Zikrul Hakim.
- Abdullah, M., Shahimi, S., & Ghafar Ismail, A. (2011). Operational risk in Islamic banks: examination of issues. *Qualitative Research in Financial Markets*, 3(2), 131-151.
- Abedifar, P., Molyneux, P., & Tarazi, A. (2013). Risk in Islamic banking. *Review of finance*, 17(6), 2035-2096.
- Adiwarman A. Karim. 2010. *Bank Islam (Analisis Fiqih dan Keuangan)*. Jakarta: PT. RajaGrafindo Persada.
- Ahmed, H., & Khan, T. (2007). 10 Risk management in Islamic banking. *Handbook of Islamic banking*, 144.
- Akkizidis, I., & Khandelwal, S. K. (2008). *Financial risk management for Islamic banking and finance* (pp. 42-79). New York: Palgrave Macmillan.
- Al Arif, M. N. R., & Rahmawati, Y. (2018). Manajemen risiko perbankan syariah (suatu pengantar).
- Al Rahahleh, N., Ishaq Bhatti, M., & Najuna Misman, F. (2019). Developments in risk management in Islamic finance: A review. *Journal of Risk and Financial Management*, 12(1), 37.
- Arbi, Syarif. 2013. *Lembaga Perbankan Keuangan Pembiayaan*. Yogyakarta: BPF.
- Ariffin, N. M., Archer, S., & Karim, R. A. A. (2009). Risks in Islamic banks: Evidence from empirical research. *Journal of Banking Regulation*, 10, 153-163.
- Bessis, J. (2011). *Risk management in banking*. John Wiley & Sons.
- Covello, V. T., & Mumpower, J. (1985). Risk analysis and risk management: an historical perspective. *Risk analysis*, 5(2), 103-120.
- Daidumi Darmawan dkk. 1984. *Kamus Istilah Ekonomi*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa Departemen Pendidikan dan Kebudayaan.

<https://repositori.kemdikbud.go.id/2913/1/kamus%20istilah%20ekonomi%20-%20%20223h.pdf>.

- Djohanputro, Bramantyo. 2008. *Manajemen Risiko Korporat*. Jakarta: Penerbit PPM.
- Drajad H. Wibowo dalam buku Masyhud Ali. 2006. *Manajemen Risiko Strategi perbankan dan Dunia Usaha Menghadapi Tantangan Globalisasi Bisnis*. Jakarta: Rajawali pers
- F. N. Idroes. 2008. *Manajemen Risiko Perbankan*. Jakarta: Rajawali Pers
- Fasa, M. I. (2016). Manajemen Resiko Perbankan Syariah Di Indonesia. *Li Falah: Jurnal Studi Ekonomi dan Bisnis Islam*, 1(2), 36-53.
- Greuning, H. V., & Bratanovic, S. B. (2009). Analyzing banking risk.
- Hassan Al-Tamimi, H. A., Miniaoui, H., & Elkelish, W. (2015). Financial risk and Islamic banks' performance in the Gulf cooperation council countries. *The International Journal of Business and Finance Research*, 9(5), 103-112.
- Ikatan Bankir Indonesia. 2016. *Supervisi Manajemen Risiko Bank*. Jakarta: PT. Gramedia Pustaka Utama.
- Islam, K. A., & Barghouthi, O. A. (2017). Risk Management of Islamic Banking: An Islamic Perspective. *International Journal of Islamic Banking and Finance Research*, 1(1), 25-28.
- Leo, M., Sharma, S., & Maddulety, K. (2019). Machine learning in banking risk management: A literature review. *Risks*, 7(1), 29.
- Makiyan, S. N. (2008). Risk management and challenges in Islamic banks. *Journal of Islamic Economics, Banking and Finance*, 4(3), 45-54.
- Miranti Kartika Dewi; Fenny Rosmanita ; Muhammad Budi Prasetyo ; Niken Iwani Surya Putri ; Banu Muhammad Haidir. *Manajemen Risiko Bank Islam / Imam Wahyudi, [...et.al.]*; Editor: Ema Sri Suharsi .2013
- Nugrahani, F., & Hum, M. (2014). Metode penelitian kualitatif. *Solo: Cakra Books*, 1(1), 3-4.

- Nugroho, L., Suganda, A. D., Febrianty, F., Labetubun, M. A. H., Ihwanudin, N., Trimulato, T., ... & Anwar, A. (2020). Pengantar Perbankan Syariah.
- Power, M. (2004). The Risk Management of Everything. *The Journal of Risk Finance*, 5(3), 58-65.
- Power, M. (2009). The Risk Management of Nothing. *Accounting, organizations and society*, 34(6-7), 849-855.
- Sholahuddin, M. (2006). Risiko Pembiayaan Dalam Perbankan Syariah. *Benefit: Jurnal Manajemen dan Bisnis*, 8(2), 130-138.
- Suganda, A. D. (2015). Mengurangi Tingkat Risiko Dengan Manajemen Islami. *ISLAMICONOMIC: Jurnal Ekonomi Islam*, 6(2).
- Van Greuning, H., & Bratanovic, S. B. (2020). *Analyzing banking risk: a framework for assessing corporate governance and risk management*. World Bank Publications.
- Waemustafa, W., & Sukri, S. (2015). Bank specific and macroeconomics dynamic determinants of credit risk in Islamic banks and conventional banks. *International Journal of Economics and Financial Issues*, 5(2), 476-481.
- Website OJK. Peraturan Otoritas Jasa Keuangan Nomor 65 /Pojk.03/2016.
- Website OJK. URL: <https://www.ojk.go.id/id/kanal/perbankan/tentang-perbankan/Pages/Tugas.aspx>
- Website OJK. URL: <https://www.ojk.go.id/id/kanal/syariah/data-dan-statistik/statistik-perbankan-syariah/Pages/Statistik-Perbankan-Syariah---Juni-2022.aspx>
- Website OJK. URL: <https://www.ojk.go.id/id/regulasi/Documents/Pages/POJK-tentang-Penerapan-Manajemen-Risiko-bagi-Bank-Umum-Syariah-dan-Unit-Usaha-Syariah/pojk%2065-2016.pdf>
- Williams, C. A. (1995). *Risk Management and Insurance*. McGraw-Hill.
- Yusmad, M. A. (2018). *Aspek Hukum Perbankan Syariah dari Teori ke Praktik*. Deepublish.