

Factors Influencing Liquidity Risk of Islamic Banks in Indonesia : A Systematic Literature Review

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Abstract. Liquidity issues have become crucial in the banking sector during the global economic recovery following the COVID-19 pandemic, presenting significant challenges that Islamic banks must proactively address. This article systematically examines the factors influencing liquidity risk in Islamic banks in Indonesia using the systemic literature review (SLR) methodology following the PRISMA procedure. A comprehensive search of the Google Scholar Database was conducted using three key keywords: "liquidity risk," "Islamic banks," and "Indonesia." After a rigorous screening and selection process, fifteen relevant articles were identified for in-depth analysis. The findings reveal that the key determinants of liquidity risk can be categorized into three groups: internal factors, intermediary factors, and external macroeconomic factors. A clear implication of these findings is that Islamic banks need to manage their liquidity risk more effectively by adopting a holistic strategy that simultaneously and more seriously addresses all three categories of factors. This integrative approach is crucial for managing the complexity of the post-pandemic financial landscape.

Keywords: Indonesia; Islamic Banks; Literature Review; Liquidity Risk; Systematic Review

1. INTRODUCTION

Amid turbulent economic conditions, the Islamic banking industry in Indonesia is still showing decent development, with total assets reaching Rp892.16 trillion or growing by 11.21% year-on-year (OJK, 2024). The Islamic banks have developed and continue to evolve, driven generally by regulatory support, technological advancements, and a growing demand for Sharia-compliant financial services (Yanti et al., 2024). Figure 1 below depicts the asset growth.

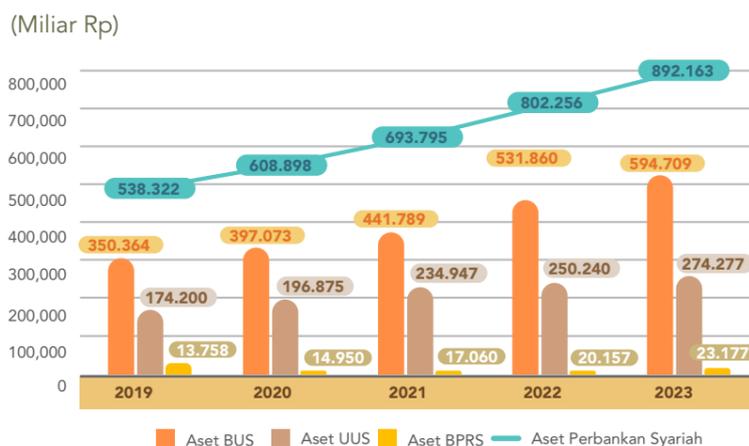


Figure 1. Growth of Islamic Banks' Assets in Indonesia.

Source: OJK (2024), page 19

In terms of economic contributions, Islamic banks have expanded their reach by providing financial services to previously unserved segments of society (Naceur et al., 2017).

This promotes business sectors that drive good economic growth (Supriani et al., 2021). Islamic banks also participate in poverty reduction through their unique financial products and social funds like Zakat (charitable giving) and Qard Hasan (benevolent loans) (Iskandar et al., 2020). These funds help supporting low-income individuals and communities (Hidayah & Karimah, 2023), therefore, increasing financial inclusion (Junaidi, 2024). Other contribution of Islamic banks is providing stability and resilience to the financial system because of their risk-sharing principles and prohibition of speculative activities (Hafizh et al., 2020). This stability contributes to the overall resilience of the Indonesian financial system (M. Anwar et al., 2020). Due to their significant contributions, maintaining Islamic banks in healthy condition is a must in providing a secured and better future for the society (Wibowo & Rudiantono, 2022).



Figure 2. Growth of Islamic Banks' Intermediation in Indonesia.

Source: OJK (2024), page 17

Currently, however, in the recovery process post COVID-19 pandemic, the world economy facing high level of inflation that makes financial regulators limit liquidity creation (Berger et al., 2024). This necessitates Islamic banks to pay extra attention on how they manage their liquidity more effectively (Hoque & Liu, 2023). Although financing risk is still dominant in Islamic banks, liquidity risk cannot be emphasized more in this time (Wiranatakusuma et al., 2020).

Managing liquidity risk is important in Islamic banks (Suganda et al., 2023). Different from the conventional banks, Islamic banks with their special characteristics in terms of asset class and development phase, additionally diverse challenges lie ahead (Abasimel, 2023). Islamic banks operate under Sharia law, which prohibits interest (riba) and speculative activities (gharar) (Suwasdi et al., 2021). This limits their ability to use conventional liquidity management tools like interest-bearing instruments, which consequently Islamic banks need special attention and mitigation (Mikou et al., 2024).

Liquidity risk is found to be vital in affecting performance (Ziyad et al., 2023) and profitability (Supiyadi, 2021) (SM & Razimi, 2019). Successfully overcoming liquidity risks means that Islamic banks have a better chance avoiding crisis (Viphindrartin et al., 2020) and its corresponding challenges (Yunita, 2020). Islamic banks can continuously have contribution to the stability of financial system in general (Yulianti & Pakata, 2023) (Maritsa & Widarjono, 2021). To better manage liquidity risks, this study aims to examine factors that influence liquidity risks in Islamic Banks in Indonesia. Considering the important aspect of liquidity risk, it designs to conduct a systematic literature review (SLR) of the issue.

2. RESEARCH METHOD

This study employs systematic literature review which involves searching articles from electronic database with specific keywords relating the research topic. The keywords used are “liquidity risk”, “Islamic bank” and “Indonesia” with Boolean operator AND. The choice of these keywords is determined so as to find the correct articles. To ease the search process, Harzing’s Publish or Perish software is operated which automatically searches articles through Google Scholar database. To make sure the review reflecting new academic development, the search is limited to those articles published from 2018 onwards. The Scopus database is also attempted, but the search result only returns eight articles which are too small in number for meaningful review.

The method for searching and screening the articles follows PRISMA method (Page et al., 2021). This method is taken to ensure that the search process reach a wide possible scope of exploration. The procedure of using PRISMA is depicted in Figure 3 below. Initially, a limit of one hundred articles is imposed with the Harzing’s software to prevent overwhelming number of search return and to make sure that only highly cited articles are included. After that, the first screening is by examining the titles and it is found that only 79 articles are relevant. These remaining articles are further screened by inspecting the abstract and it is found that 55 articles are appropriate for the review. Next step involves looking at variables used in the articles, it turns out that only 40 articles are relevant. Finally, after reading the content of the articles, only 15 articles are included in this review.

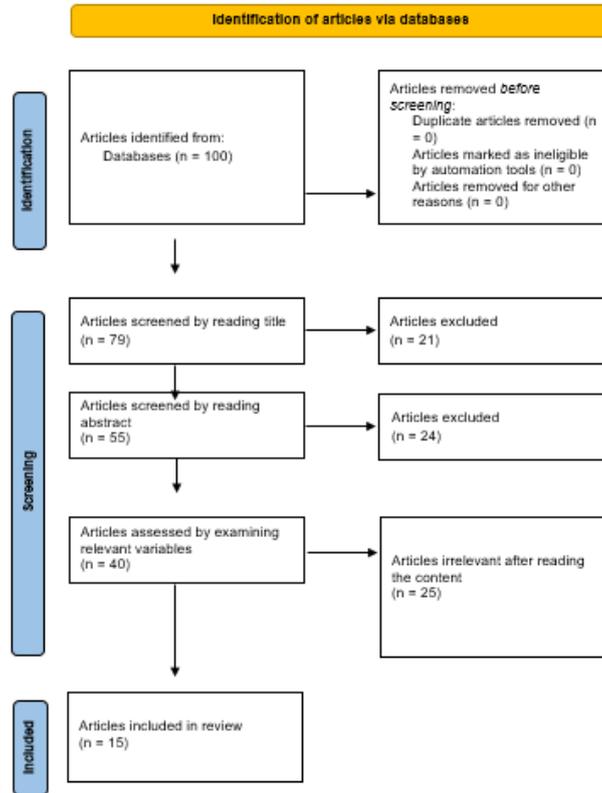


Figure 3. The Search and Screening with PRISMA Method

Source: Author’s modification based on (Page et al., 2021)

3. RESULTS AND DISCUSSION

The fifteen articles included in this review use quantitative analysis with data from various scope and periods, and mainly relate to Islamic commercial banks, except Tuti et al. (2022) that uses Islamic rural bank and Hidayat (2024) that uses a single bank namely Bank Syariah Indonesia (BSI). The summary of the articles is presented in the Table 1 below.

Table 1. Summary of The Articles Included.

No.	Author (Year)	Research Type	Finding
1	(Puteri, 2018)	Eleven banks in the periods of 2010 - 2014	Bank size, CAR, and ROA affect liquidity risk while ROE does not affect liquidity risk
2	(Irawati & Puspitasari, 2019)	Thirteen Islamic banks in the period of 2010-2016	CAR, asset quality, and third-party funds have a significant effect on banks liquidity risk while profitability does not
3	(Abdul-Rahman et al., 2019)	Ten Islamic banks in the period of 1995-2015	Equity Based Finance increases liquidity risk (measured by NSFR)
4	(Anggun & Waspada, 2019)	Thirteen Islamic banks in the period of 2015-2017	Size of Firm, ROE, ROA and CAR have not significant in Islamic banks in Indonesia
5	(Anis & Hamdi, 2022)	Quantitative with data 2015Q1-2021Q2) using cumulative data on Islamic banking	Economic uncertainty has effect on liquidity risk in the short term and long term. Inflation rate has negative effect on liquidity risk

6	(Arfiyanti & Pertiwi, 2020)	Islamic banks in the period of 2014-2018	ROA and CAR had no effect on liquidity risk. Meanwhile, bank size has a significant negative effect on the liquidity ratio
7	(Asrianti et al., 2021)	Islamic banks in the period of 2010 to 2017	Third Party Fund has impact on Liquidity Risk, while CAR, Age, NPF, ROA do not affect Liquidity Risk
8	(A. Berniz & Maulida, 2022)	Seven Islamic commercial banks in the period of March 2015 to December 2019	NPF, profit-loss sharing investment, and bank size affect the liquidity risk while for-profit sharing investment account, capital adequacy ratio, return on assets, do not affect the liquidity risk of Islamic banks
9	(Y. M. Berniz et al., 2023)	Fourteen Islamic commercial banks in the period of March 2012 to December 2020 (quarterly data)	Third party funds (TPF), asset quality (Non-Performing Financing), and CAR have a significant effect on the liquidity risk of Islamic banks, while Profit and Loss Sharing and Return on Assets do not affect the liquidity risk of Islamic banks
10	(Cahyani, 2024)	Banking companies listed on the Indonesia Stock Exchange for the period 2018-2022.	Bank size variable has an effect on bank liquidity, while financing risk variable and the efficiency level do not have a significant effect on the liquidity risk
11	(Gogo & Arundina, 2021)	Nine samples of Islamic banking in Indonesia in the period 2013 to 2019.	Financing, level of profitability based on equity, and CAR have effect on liquidity risk
12	(Hidayat, 2024)	Bank Syariah Indonesia (BSI) in the period of 2021-2023	GDP has a negative and significant influence on liquidity risk (FDR), while inflation has a positive influence on liquidity risk
13	(Ramadhan et al., 2022)	Nine Islamic banks	Capital and credit risk level can affect liquidity risk, while third party funds and exchange rates do not affect liquidity risk
14	(Tuti et al., 2022)	Forty Islamic rural banks	CAR had a positive effect on liquidity risk, while ROA and financing had a significant and negative influence on liquidity risk
15	(Yustina et al., 2021)	Twelve Islamic banks in the period of 2018 - 2019	NPF, Financial to Funding Ratio have an influence on the liquidity risk, while Third Party Funds, Macprudential Intermediation Ratio and Macprudential Liquidity Buffer, have no effect on the liquidity risk of Islamic Banking.

Source: The author

After summarizing the articles, key variables have emerged and can be identified according to their characteristics. Firstly, there are those variables that can be classified into internal factors. Bank size affect liquidity since the bigger the size banks will find it easier to get an external funding due to reputation and perception that big banks have good financial capabilities. CAR also affect liquidity since the more capital the banks have the more liquidity they can attain. ROA and ROE also affect liquidity since banks with more profits can attract more liquidity. NPF also affect liquidity since lower NPF means better financing management, which makes the banks maintain healthy level of liquidity according the financial plan. FDR affect liquidity since an appropriate level of financing is determined suitable to the deposit

obtained by the banks. Last of all, third party fund (TPF) affect directly liquidity since this is the main stable source of liquidity for Islamic banks.

Secondly, there are variables that belong to the intermediation factors i.e. investment and PLS financing, and asset quality. These factors are especially important since this is the Raison d'être of the Islamic banks' existence. With PLS financing, equitable participation in the economy can be realized, especially among those who need the financing. In addition, asset quality is also the determining factor and indicate how Islamic banks capable of managing the financing. Low asset quality means more liquidity risk ahead for Islamic banks.

Lastly, there are external variables that describe the macroeconomic context where the Islamic banks operate. Economic uncertainty has effect on Islamic banks in terms of liquidity. As applied in many businesses in general, uncertainty make people reduce consumption, cause investor delay investment, and all these increase the cost of funding which result in liquidity risk for Islamic banks. GDP has negative influence on liquidity risk. This means that when economy is growing there is tendency for Islamic bank to have liquidity risk since the banks plan to expand their assets to capture the economic growth benefit. Inflation also causes liquidity risk because consumers expect higher return from their money causing fierce competition among the banks to secure enough liquidity. These three classes of key variables are tabulated in Table 2 below.

Table 2. Key Identified Variables Affecting Liquidity Risk.

No.	Key Variables	Source	Number of Publication
1	Internal banks factors (Size, CAR, ROA, ROE, NPF, FDR, TPF)	(Puteri, 2018), (Irawati & Puspitasari, 2019), (Anggun & Waspada, 2019), (Arfiyanti & Pertiwi, 2020), (Asrianti et al., 2021), (A. Berniz & Maulida, 2022), (Cahyani, 2024), (Gogo & Arundina, 2021), (Tuti et al., 2022), (Yustina et al., 2021)	10
2	Profit Loss Sharing (PLS) intermediation factors (Financing, asset quality)	(Abdul-Rahman et al., 2019), (Y. M. Berniz et al., 2023), (Irawati & Puspitasari, 2019), (Gogo & Arundina, 2021), (Yustina et al., 2021)	5
3	Macro factors (GDP, Inflation, Economic Uncertainty)	(Hidayat, 2024), (Anis & Hamdi, 2022), (Yustina et al., 2021)	3

Source: The author

4. CONCLUSION

This study is the SLR on what factors affecting liquidity risks in Islamic banks in Indonesia. A total of 15 articles were taken from Google Scholar database. The inclusion and exclusion of articles was based on the titles, abstract, content, and also variables of interest. There are many factors that determine liquidity risks and it is found that key variables that

influence liquidity risk are internal factors, PLS intermediation factors, and also external macroeconomic factors. These three classes of factors should be focal points in devising strategy for Islamic banks to manage their liquidity. Paying attention to the internal factors ensures that Islamic banks are managed efficiently while intermediation factors direct Islamic banks to improve their role to equitable risk sharing financing that benefit society. Islamic banks cannot avoid macroeconomic factors but at least by having awareness of those factors, Islamic banks can have a robust plan where those external factors are addressed and taken into account in the future scenario. This research has limitation that uses data from Indonesian Islamic banks only. Future reviews should include more data from other countries.

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