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QUALITATIVE RESEARCH

Smart Liquidity Risk Management and Islamic Banking Institutions of Pakistan: Challenges and way forward

Muhammad Noman Khan[1*], Saqib Sharif[2]

[1,] Institute of Business Administration, Karachi, Pakistan

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Abstract

Purpose: What are the challenges faced by the Islamic banking institutions (IBIs) of Pakistan in the management of liquidity risk and what are the possible alternatives adopted to mitigate that risk? This study discusses the challenges faced by IBIs; since Islamic banking has now been deeply rooted as an alternative banking system that offers Sharīʿah-based financial solutions and contributes towards the growth of economy.

Design/Methodology/Approach: To explore the challenges and obstacles encountered by IBIs, semi-structured interviews of Sharīʿah Advisors and bank professionals from Risk Management Department, Treasury Front Office are conducted.

Findings: Based on the insights gained from experts through in-depth semi-structured interviews, this study suggests that IBIs are at a disadvantage compared to conventional banks when it comes to managing the liquidity risk. Besides, interviewees opined what needs to be done so that IBIs can effectively manage their liquidity risk when faced with either excess liquidity or shortages thereof.

Originality / Significance: No detailed prior work available specifically for the challenges faced by Islamic Banking Sector during the two-year period of 2019-2020 specifically and afterwards in general, where Islamic banking institutions faced the high liquid asset crunch due to non-availability of Government Ijārah Sukuk or other investment avenues and thus IBIs are forced to place their

* Corresponding author: Saqib Sharif
†Email: ssharif@iba.edu.pk; ORCID: 0000-0002-0005-7192

assets in the form of Cash in hand / Balances with Central Bank or alternatively placements with other banks.

Research Limitations/Implications: This study explores alternative options for IBIs to manage their excess liquidity without impacting the bottom line. Thus, provides insights for banking regulators and management of IBIs.

KAUJIE Classification: I22, K13, L32

JEL Classification: E41, G18, G21

INTRODUCTION

One of the most crucial functions of banks is the management of cashflows based on their maturities of Assets and Liabilities; in other words, the capability to acquire funding from short term deposits to finance loans at a longer term or vice versa. As a result, banks are susceptible to an inherent liquidity risk (Berger & Bouwman, 2009).

Furthermore, due to several changes and developments in the financial market, such as the wide use of complex financial instruments by big banks in a highly competitive manner, the banking sector faced severe challenges related to liquidity risk management (Mohammad, 2013). In fact, most banks failures, whether they are Islamic or conventional, are due to the difficulties in managing their liquidity needs (e.g., Majed & Rais, 2003). Recently, Silicon Valley Bank (SVB), which was 16th largest bank of U.S. failed in March 2023 due to inadequate management of Liquidity Risk (Kodres, 2023). Hence, such types of incidents draw more attention towards effective liquidity management in the banking industry.

The management of liquidity risk is equally important along with other risks, as a fundamental function for both Conventional and/or Islamic Banks keeping in view that at a broader level the two types of banking institutions have more or less same business structure. The growth of Islamic Finance is phenomenal in last two decade as it had outperformed conventional banking (IMF, 2017). The article published in PR Newswire, “Reltime & MRHB Network” (2023), total Sharīʿah-compliant assets globally grew by 12.8% to $1.6 trillion in 2022, excluding Iran, with 57% held by standalone Islamic financial institutions. The data published by S&P global mentioned that South-East Asia constitutes 80% of total Islamic Banking assets globally; Malaysia contributes 67% and Pakistan had a share of only 8%.

Apart from full-fledged Islamic Banks providing services to its consumers, nowadays almost every conventional bank in Pakistan has Islamic banking windows. By nature, banking operation carries several types of risks in day-to-day operations which includes Credit Risk, Market Risk, Operational Risk, Liquidity Risk, IT governance Risk, Reputational Risk and many others. This study focuses on the Islamic Banking sector in Pakistan and its liquidity risk management practices, challenges, and potential alternatives. Moreover, this study touches upon critique on prevailing liquidity risk management products in view of Sharīʿah-laws.

Liquidity Risk arises due to the Bank's inability to meet its obligation whether real or perceived, which may threaten its financial position or existence. Banks usually manage their liquidity risk by effective Asset Liability Management (ALM) committees in banks (also called ALCO) ensures minimal maturity mismatch, timely cashflows, and consider any unpredicted event which may impact profitability of the bank. The literature addresses multiple reasons due to which banks failed to effectively manage liquidity risk which includes fluctuation in interest rate (e.g., Ariffin & Kassim, 2013), asset liability mismatch (Hameed et al., 2019), product nature etc.

Few years ago in Pakistan, Islamic banking windows of conventional banks observed an excess liquidity due to high deposit growth and unavailability of eligible Sukuk for Statutory Liquidity Requirement purpose. Debt instruments such as coupon or zero-coupon bonds in conventional capital markets cannot be used by Islamic banks due to the element of riba (interest) present in it. To tackle the alternative of interest-based instruments, IBIs introduced 'Sukuk'; in Islamic finance, Sukuk, can be defined as, "any combination of assets (or the usufruct of such assets) that can be represented in the form of written financial instruments which can be sold at a market price provided that the composition of the group of assets represented by the Sukuk consist of a majority of tangible assets."

The absence of Government Ijārah Sukuk promotes the adoption of interbank Bayʿal-mu'ajjal transactions, where IBIs will be able to deploy their excess funds with conventional banks. In the last couple of years, it has been observed that Government of

Pakistan is seriously pushing for promotion of Islamic banking, hence the intention to adopt Islamic Banking and public inclination towards it results in whopping growth of 110% in Assets (Dec'20 – Jun'24). This impressive growth is reflecting the future landscape of Islamic Banking in Pakistan, and this study aims to cover the current practices of ALM desk to manage liquidity risk in Islamic Banking Institutions. This study aims to answer following research questions:

What are the possible sources of liquidity risk to IBIs in Pakistan?

What are the current practices in Islamic banks of Pakistan to monitor liquidity risk? and what are the challenges ALM desk faces?

Are currently practiced methods sufficient to manage liquidity risk of IBIs in Pakistan? What are the areas of improvement?

What are the challenges and its resolution during the time of excess liquidity in Islamic banks of Pakistan due to unavailability of fresh Government Ijārah Sukuk by SBP?

What is the Sharīʿah advisors view related to the management of liquidity risk?

Progress & Market Share of Islamic Banking Industry in Pakistan

Assets of Islamic Banking Industry (IBI) in Pakistan witnessed a rise of 111% from PKR 4,725 billion in Dec-20 and reached at PKR 8,994 billion by the end of Dec-23. Similarly, deposits of IBI also showed a promising growth, increasing from PKR 3,360 billion during the period to reach PKR 6,749 billion. The market share of financing (net) and investment (net) of IBI in the overall banking industry stood at 27.4 percent and 16.3 percent respectively by the end of Dec-2023. The number of Islamic banking branches increased to 4,955 showing a growth of 43 percent since Dec-20. While Islamic Banking Windows (i.e., standalone Islamic branches of conventional banks) stood at 1,922, portraying growth of 17 percent during the same period. The data published by State Bank of Pakistan in Quarterly Islamic Banking Bulletin of December 2023[1], the liquidity metrices overall has shown an improvement as shown in Table 1.

[1] See https://www.sbp.org.pk/ibd/Bulletin/2023/Bulletin-Oct-Dec-2023.pdf

Table 1: Liquidity metrics from SBP Quarterly Islamic Bulletin (Dec-23)

	Islamic Banking Industry			Overall Banking Industry		
Liquidity Ratios (%)	Dec-23	Dec-20	Dec-17	Dec-23	Dec-20	Dec-17
Liquid Assets to Total Assets	49.1	28.7	27.0	63.5	54.8	54.0
Liquid Assets to Total Deposits	65.4	36.2	32.6	101.1	74.3	76.1
Financing to Deposits (Net)	49.4	55.5	64.0	41.8	44.8	50.1

LITERATURE REVIEW

Mikou et al., (2024) argue that Islamic banking institutions are only allowed to invest in avenues that are compliant with Sharīʿah law; hence adherence to Sharīʿah law and lack of easy availability of investment instruments raise the level of challenge in managing liquidity for these institutions. Gabbi (2004) documented that the reliance on effective risk management within an organization plays a vital role to decide an organization's worth in the market. Gabbi explained that liquidity risk can be controlled through practices that are severely connected to the scale and scope of financial measures, such as large banks can manage risks emanating from both additional market information and monetary policy functions.

Ghannadian and Goswami (2004) observed the performance of Islamic banks and how Islamic banking scheme can offer liquidity and support in the process of money creation from side-to-side contribution of transactions accounts and find that in all developing economies investing funds on basis of profits and losses is an attractive choice for the banks. On the other hand, Alhammadi (2020) talks about constraints faced by Islamic banks complying to Sharīʿah while managing different risks; that makes the choice of business model very crucial to manage liquidity risk to remain sustainable.

Kumar and Yadav (2013) emphasizes on sound liquidity risk management processes as part of the overall risk management that ensures future viability and stable banking sector. Zheng (2006) argued that short-term yield spreads are dominated by liquidity risk. Franck and Krausz (2007) observed that securities market matter more in supporting bank for likely liquidity deficiency while studying the function of stock exchange as a similar function of the lender of last resort. Many dealers assert that extra liquid markets are superior to fewer liquid markets (Mainelli, 2008) and they have more flexibility of deepness and tightness compared to illiquid markets.

Ismal (2010) indicates that with respect to liquidity management, the Islamic banks in Indonesia are evaluating themselves on the basis of three factors such as, banks liquidity management policy, liability side and asset management side. Ismal (2010) suggested that Islamic banks should improve their policies to balance liability and asset, communicate their operations and principles to public to deepen their understanding towards Islamic banks and restructure management of liquidity on asset and liability side to improve and strengthen their liquidity management. Moreover, Ismal (2011) also proposed a theoretical model to efficiently mitigate liquidity risk that has been adopted by few countries. In Bangladesh, Bai-Muajjal contract, a debt-based instrument, is widely used by Islamic banks to facilitate liquidity risk management (e.g., Ahmed 2013).

Several empirical studies aimed at detecting the main determinants of LR in Islamic banks. For example, Ahmed et al. (2017) investigated the main factors affecting liquidity levels in six Pakistani Islamic banks over 2006-2009. Liquidity is negatively affected by the debt-to-equity ratio and the non-performing loans ratio, while it is positively impacted by bank size and the asset utilization ratio. On the hand, Alshammari (2025) finds that GCC countries banks strengthen their liquidity ratios when facing a liquidity problem, i.e., for GCC banks liquidity management is not a concern due to the implicit guarantee of bank deposits by GCC wealthy governments.

A second group of studies focused on comparing the liquidity levels of Islamic and conventional banks. Iqbal (2012) used a ratio analysis to compare the liquidity between five Islamic banks and twenty-two conventional counterparts in Pakistan during 2007-2010. The results highlight the better liquidity position of the Islamic banks in comparison to the conventional ones, both banks' liquidity levels are positively related to the capital adequacy ratio, the return on assets (ROA) and the return on equity (ROE), whereas the non-performing loans ratio had a negative impact on liquidity. Anwar et al. (2022)

examines whether systematic (macroeconomic) and unsystematic (bank level) factors determine liquidity risk in Islamic banks. The study concludes that there is a need to strengthen the framework of liquidity risk management to overcome systematic and unsystematic challenges faced by Islamic banks. Moreover, Hossain et al. (2025) while conducting systematic literature review argues that the limited availability of Sharīʿah-compliant liquidity management instruments exacerbates liquidity risk to meet short-term financial obligations for Islamic financial institutions.

The broad perspective on risk and its management are embodied in the objective of Shari'ah which is to protect the wellbeing of mankind. Chapra (2008) quotes Al-Ghazali in defining maqāṣid al-Sharīʿah as "promotion of the well-being of the people, which lies in safeguarding their faith (Din), their self (Nafs), their intellect (Aql), their lineage (Nasl) and their wealth (Mal)". Agha and Sabirzyanov (2015) mentioned that Islam provides detailed instructions to manage various types of risks in a broader sense, amongst others are criminal assault risk, illness risk, investment risk, business risk etc. Interestingly, Islam also commands the adherents to manage spiritual types of risks such as to avoid fornication, idolatry, apostasy, and other types of sins. However, the focus of discussion within the risk management in this paper is on risk in economic and financial transactions.

Contribution of the study

This study aims to discuss the practices and challenges faced by Islamic banking institutions in managing liquidity and area of improvements where Islamic banks can focus to strengthen their liquidity risk profile. Based on aforementioned literature review, it can be observed that there is no detailed prior work available specifically for the challenges faced by Islamic Banking Sector during the two-year period of 2019-2020 specifically and afterwards in general, where Islamic banking institutions faced the high liquid asset crunch due to non-availability of Government Ijārah Sukuk or other investment avenues and thus IBIs are forced to place their assets in the form of Cash in hand / Balances with Central Bank or alternatively placements with other banks. Lastly, this study explores alternative options for IBIs to manage their excess liquidity without impacting the bottom line.

RESEARCH METHOD

To address the research questions mentioned at the end of Introduction Section, this research analyzes the practices of managing liquidity in IBIs and gaining insightful information from Asset Liability Management Committee (ALCO), Risk Management Division, Treasury Front Office and Finance Department to tackle the situation where IBIs faced the situation like 2019-2020 crises and later. Moreover, the Sharīʿah Advisors view on Liquidity Risk Management for IBIs has also been discussed, i.e., challenges faced by the IBIs and concerns raised by Sharīʿah advisors. Hence this research applies qualitative research method by conducting purposive sampling method, i.e., semi-structured interviews from the experts who have sufficient experience about the field and directly involve in managing the liquidity risk. Qualitative approach requires detailed interviews from senior management of different Islamic Banking Institutions (IBIs) in Pakistan to discuss about the practice and challenges in managing liquidity risk.

The study is based on a qualitative approach, five in-depth interviews are conducted. An open-ended semi-structured interview questionnaire was developed. The questionnaire was shared with the interviewee at least one day before the interview after getting their consent for the interview. Five experts were selected for interview; three from the Risk Management division and Treasury Front Office of Islamic banking institutions and two are Sharīʿah Advisors as mentioned in Table 2 and 3. Interviews were conducted online through Zoom channel and were recorded with the consent of interviewees. Each interview time ranges from 20 to 25 minutes. Moreover, completion of 5 interviews was the point of saturation for us to obtain the required information, therefore, we stopped at this number; after the fifth interview authors would not have gained any new insights from the additional respondents due to attainment of exhaustion level (e.g., Daud & Sharif, 2024). The interview questionnaire is provided as Appendix-1 at the end of this study.

Table 2: Profession of Interviewees

S. No	Profession	Number of Participants
1.	Risk Management Division / Treasury	3
2.	Sharīʿah Advisors	2

Table 3: Designation and Experience of Interviewee

	Interview Code	Number of Participants	Years of Experience
1.	RM1	Head of Market & Liquidity Risk Management at Bank Alfalah Ltd.	18
2.	RM2	Head of Market & Liquidity Risk Management at Meezan Bank Ltd.	20
3.	TR1	Team Lead - Money Market and Fixed Income, Treasury at Meezan Bank Ltd.	12
4.	SA1	Sharīʿah Advisor – Meezan Bank Ltd.	15
5.	SA2	Sharīʿah Advisor – Faysal Bank Ltd.	10

DISCUSSION

This study stops after conducting three interviews from bank professionals and two interviews from Sharīʿah advisors, because the liquidity problems faced by IBIs are same across the whole Islamic banking industry and thus reached the point of exhaustion / saturation (e.g., Sharma & Choubey, 2022; Daud & Sharif, 2024). Besides, the focus of the interviews is quite narrow (i.e., questions revolve around Islamic banks' liquidity management issues), hence after three interviews from bankers and two from Sharīʿah advisors, nothing new is expected to come as the liquidity risk management challenges are qualitatively similar for all the IBIs. The interview questionnaires depend on the respondent's professional background and thus the set of questionnaires is classified into two categories:

1- Interviews from bankers in Risk Management Department / Treasury Front Office.

2- Interviews from Sharīʿah Advisors.

The division of interview questionnaires is according to the objectives of this study and focuses on Liquidity Risk Management practices, challenges, and future alternatives for Pakistan's Islamic banking industry. Based on the discussion with experts following are the responses.

Interview with Risk Management / Treasury Professionals

Drivers of Liquidity Risk in Banks

The interviews commenced with a comprehensive exploration of Liquidity Risk Management, delving into the identification of key liquidity risk drivers. Following question is asked from Risk Management and Treasury professionals:

RQ1 In your opinion, what are the main drivers of liquidity risk of any bank in general?

From detailed interview, following emerged as the primary drivers of liquidity risk in banks:

Profile of Deposits: Risk Management professionals emphasized the pivotal role of deposit profiles in facilitating banks' asset funding, particularly concerning stability and reliability. Deposits may be categorized from most stable to least stable, encompassing Retail, SMEs, Corporate, Non-Financial Corporates, and Financial Institutions deposits. RM1 stated:

"*The diversity of deposit profiling is very important for any bank to mitigate liquidity risk from the funding side as it is very unlikely to see the same stress for each type of depositors. Natural depositor or retail deposits considered to be the most reliable source of funding for any bank.*"

Assets Deployed: Liquidity assessment of assets hinges on various factors including the issuer, asset quality, and tenor. From the perspective of issuers, assets may be ranked as government, corporate, and financial institution. RM2 stated:

"Assets quality is based on the deployment i.e., Financing (Murābaḥah, Muḍārabah, Ijārah, Mushārakah), Placements (Muḍārabah, Bayʿal-mu'ajjal) and Investments (Sukuks). These are three major portions of the on-Balance Sheet assets of any Islamic bank. If we categorize based on the quality it should be ranked as placements (credit rating of counterparty), Loans compositions (Consumer loan, Syndication, Corporate Loans and Financial Institutions Loans) and Investments (investment-grade or below investment grade based on the issuer credit rating)."

Nature of Funding: RM1 said:

"Usually, banks depend on two types of funding other than deposits i.e., Secured Funding and Unsecured Funding."

RM2 elaborated more about the nature of funding:

"In the case of secured funding, Conventional Banks usually use the product of Repurchase agreement where they tend to buy owned securities from another counterparty on a future date. It is a widely popular mechanism of generating funding on a short term or long-term basis. However, in case of Islamic banking institutions, it is against the principle of Islamic Sharīʿah to sell an asset with caveated to repurchase it back. Bayʿal-mu'ajjal is one of the products used by Islamic Banks as an alternative to Repo funding, which as per Sharīʿah Scholars is acceptable based on Sharīʿah rules.

On the other hand, unsecured funding is based on the clean borrowing/placements from another financial institutions assigned limits. The review of limits is done on an annual basis based on historical trend of utilization pattern against that counterparty, credit rating of counterparty, Balance sheet forecast of the Bank and many other macro-economic factors."

The unavailability of secured/unsecured funding may lead to liquidity risk for any bank. Banks should have secured/unsecured lines with other counterparties to manage any kind of uncertainty.

Concentration of Funding: It is one of the factors which may trigger liquidity risk of any bank. Concentration of funding refers to the scenario where banks depend on specific type of funding, as articulated by RM1:

"Banks have large volume corporate deposits which let's say consists 20% of their whole funding, in this case bank may exposed to the liquidity risk due to dependency on large volume customers. In case of any macro-economic movement these depositors are more likely to withdraw their funds faster as compared to the Retail/SME customers with smaller deposits amounts. It is recommended not to depend on such customers and constant tracking of such customers and their associated risk is required."

TR1 said:

"Banks based on the relationship with their large entities/customers offer their services/credit lines and in return customers deposit large amounts of sum. In case customers defaults on their loans; they immediately withdraw their funds due to which bank suffer credit risk along with liquidity risk."

Systematic Risk due to Macroeconomic Factors: Liquidity risk may arise for a bank due to change in macro-economic factors like change in interest rates, exchange rates (which directly impacts foreign/local currency deposits), change in tax rates, regulatory guidelines on profit & loss distribution for Islamic banks etc. However, systematic risk is inevitable for banks due to its nature, and it is only effectively managed through effective internal controls. This response supports Anwar et al. (2022) research on systematic risk challenges faced by IBIs.

To summarize aforementioned sub-theme, RM1 stated:

"The main driver of liquidity risk can broadly be classified into bank specific risk and systematic risk. Bank specific risk can be generally coming from a bank's financial health, it can be driven by high concentration, asset concentration i.e., Advances or Investments.

Sometime reputational risk also drives the liquidity risk. Systematic risk can be dependent on multiple factors which may affect liquidity of bank such as if the DSIBs defaulted than it may have direct impact to any bank operating in same economy despite they have healthy financial position. These types of factors are not controllable and should be assessed while accessing liquidity risk of any institution."

Liquidity Risk Governance in Banks

During the interview sessions, the respondents shared the details about the framework under which liquidity risk is monitored by the banks.

RQ2 Is there any committee (like ALCO etc.) which oversees the liquidity risk of your bank? what is the frequency of committee meetings and what type of key liquidity ratios are discussed?

Following is the detail response from RM2 on the above question:

"The Asset Liability Management Committee (ALCO) is responsible for monitoring liquidity risk of a bank, and they hold meetings on monthly basis. The committee consists of the Treasury Front Office, Risk Management, Finance and Corporate/Retail group head and other business groups. Below are the agenda of meeting:

Liquidity Risk metrics (liquidity ratios including LCR & NSFR, maturity gaps, repricing gaps) trends of last months are discussed thoroughly and in case of any breach in ratios, treasury should rectify it based on reasonable reason with consonance of risk management team.

Business units (Treasury, Corporate, Retail) share their views on market movements and significant impacts during the month or probable impact on profitability of portfolio.

Deposits and financing rate is also discussed along with Fund Transfer Pricing (FTP) of each business unit from Finance Department.

During the meeting, any new proposal related to investment and financing is also discussed with approval from business units that are previously approved from the ALCO committee."

RM1 responded on the above question:

"Liquidity risk has been regularly monitored at BODs sub-committee and Management level. BOD is responsible for approving liquidity risk framework on an annual basis while monitoring the risk appetite statement on quarterly basis. On the other hand, management discusses liquidity metrics on monthly basis in ALCO meetings and keep track of different ratios including Basel III Liquidity Standards."

From the responses gathered from the participants, it can be concluded that ALCO plays an important role in the management of liquidity risk for Islamic Banks. The responses gathered truly reflected the same and consistent with Alhammadi et al., (2020) that talks about dangers to Islamic financial institutions from business models that are overly exposed to liquidity risk.

Liquidity Risk in Islamic Banks

After some general discussion over liquidity risk of banks and their governance framework, questions are more centric towards Islamic banking institutions challenges and comparison with conventional banks in lieu of Liquidity risk.

RQ3 Do you think Islamic Banks/IBIs are more exposed to the liquidity risk compared to the conventional banks in Pakistan? What are the key challenges your bank face while managing liquidity risk?

Below are some observations which may help to understand the challenges faced by the Islamic banks. In general, Islamic Banks exposed to liquidity risk same as conventional banks. The following points supports this narrative quoted by RM1:

"The composition of funding which is mainly customer deposits profile plays a vital role from the funding side for any bank. If banks depend on core deposits from Retail/SME customer compared to the corporate or FI deposits than they have stable funding irrespective of the fact whether they are conventional or Islamic in nature."

While discussing customer deposits profile with interviewees, TR1 mentioned:

"As majority of population in Pakistan is Muslim, so retail or walk-in customers have more flux towards Islamic Banks compared to conventional Banks which can be easily tracked

from Bank's annual report disclosure which is backed by bank's published detailed composition of their deposits."

RM1 added:

"Over time, Islamic Banks' deposit growth is much higher than conventional banks which is not because of the religious factor but also as a service provider they remain more efficient than conventional banks. As banks are service-provider institutions, so the excellence towards their clients also played fundamental role for the profitability and growth."

RM2 responded:

"I think Islamic banks are more exposed against liquidity risk as compared to conventional banks due to limited avenues available to deploy liquidity."

Deployment of excess funds

During the discussion it was highlighted that Islamic bank have very limited options to deploy their excess liquidity. Specifically, during the distressed period of 2019-20 where shortage of government Sukuk is at a level that banks were unable to meet their SLR requirement by investing in securities.

RQ4 In 2019/2020, when Islamic Banks/IBIs operating in Pakistan have excess liquidity due to non-availability of Bonds/Sukuks, what steps your management have taken to deploy the excess liquidity?

Islamic Banking industry deposit growth was more than their expectation in 2019/2020, there was shortage of government backed Sukuks in Pakistan and Islamic banks did not have any avenue to place their liquidity other than Placements or in the form of Cash. Moreover, as a strategic move to combat COVID-19 crises, management decided not to grant fresh loans.

During the discussion, it was mentioned by the respondents that during the time of stress i.e., 2019/2020 where there is no issuance of Sukuk, Bayʿal-mu'ajjal is most relevant and successful product which was used by the banks to deploy their excess liquidity.

TR1 responded:

"During the period, it was observed that almost every Islamic bank operating in Pakistan have this problem which led to adopt an alternative strategy i.e., Bayʿal-mu'ajjal. This product enables Islamic banks to deploy their access funds with Conventional banks through the sale of Sukuk at deferred payment. As an alternative, it is an effective tool to deploy liquidity. Moreover, they are short-term in nature (90% less than 1 year) which makes them a feasible option to use till the issuance of Sukuk."

RM1 also added:

"Yes, that was a challenging time which hampered our balance sheet growth. We use alternative products like Placements mainly in the form of Bayʿal-mu'ajjal and short-term financing."

Ahmed (2013) also mentioned *Bayʿal-mu'ajjal* as one of the most popular debt-based instruments used by Islamic banks in Bangladesh.

Shortage of Sukuk

During the period of 2019/2020, due to the unavailability of fresh issuance of Sukuk, banks faced excess liquidity and they were willingly deploying assets in the form of Cash in hand without any return. The discussion is based on that scenario and bankers responses has been recorded.

RQ5 In a scenario like 2019, when there was a shortage of Government based Sukuk, what was the alternate feasible option available to deploy the excess liquidity? Moreover, do those available options have an impact on the profitability of your bank?

RM1 responded to this question:

"I think the natural remedy for Islamic bank in those difficult times was that they had a flexibility to pass on the impact of non-availability of constant returns to the customers. Although, it shrinks the growth of Balance Sheet for the Islamic banking institutions but in my opinion, there is not substantial impact on the profitability of bank."

TR1 responded:

"If the situation persists longer than expected, you would have seen the growth of Bai Maujjal in Islamic Banks for medium term like 3-5 years."

Alternative strategy by Islamic Banks

The next question is related to the management's point of view to tackle the situation if State Bank of Pakistan (SBP) were unable to issue fresh Government backed Ijārah Sukuk.

RQ6 If that situation persists longer than expected, did your bank have any alternative strategy to tackle the situation?

If the situation like 2019/2020 continues to stall longer than expected, then banks must put funds in cash or in Placements. Moreover, Banks may explore toward longer tenor Bayʿal-mu'ajjal as they are carrying roll-over risk of deploying Placements in 1-year tenor. TR1 believes:

"We can't see any other option other than to explore longer-tenor Bayʿal-mu'ajjal as we are carrying a 1-year roll-over risk for assets placements. Additionally, if rates go up significantly after that then bank's profitability has been impacted. To summarize, if situation persists longer, than we would do medium-term Bayʿal-mu'ajjal i.e., 2-years to address this issue."

Prospective Liquidity Risk for Islamic Banks of Pakistan

After having detailed discussion related to the scenario of 2019/2020 where Islamic Banks have excess liquidity, the next discussion is related to the current and going forward issue which might have impacted the Islamic Banks in Pakistan. It was observed that during 2021 onwards there is continuous fresh issuance of Ijārah Sukuk which absorbs excess liquidity of Islamic Banks.

RQ7 Due to aggressive issuance of Sukuk (shorter as well as longer tenor) in 2022 and 2023, do you think Islamic Banks/IBIs may face liquidity crunch in foreseeable future?

RM2 responded:

"As per my understanding liquidity crunch only happens when banks are unable to sell their securities in the market which is not the case here in Islamic Banks of Pakistan. What

we observed till now is that Islamic banks have enough liquidity to participate in every auction of Sukuk either shorter or longer tenor. Furthermore, we saw a constant growth of deposits in Islamic banks even in COVID-19 times which is very unexpected for us as well. Therefore, in my opinion I can't foresee any liquidity crunch in near future for Islamic banks in Pakistan."

RM1 responded:

"No, I don't think that's the case here. The fresh issuance does not have an impact on liquidity management as in parallel SBP introduces borrowing facility (i.e., Muḍārabah Financing Facility) which provides a cushion for a bank to generate short term funds from central bank against Sukuks."

The responses are consistent with the study of Alshammari (2025) who documented positive reaction on liquidity crunch by Islamic banking institutions in GCC countries that provides opportunity to banks to strengthen their capital ratios.

Overnight Placement Facility by SBP

RQ8 In your opinion, should SBP also introduce overnight placement facility for Islamic banks to manage their liquidity, same as Muḍārabah Financing Facility?

RM1 suggested:

"Islamic Banks should have level-playing field same as conventional banks to deploy their excess funds with Central Bank. Due to absence of this facility, if funds remain idle in the form of Cash than it may impact the profitability of Banks."

RM2 added:

"As Islamic Bank's did not have the facility to deploy funds in shorter tenor of less than 1 year in Government issued Sukuk, then it will be better to deploy some portion of funds in the form of short-term placements with central bank to combat any unexpected withdrawal of deposits."

TR1 opinion:

"Definitely, SBP should introduce placement facility for Islamic banks to deploy their excess funds with central bank. I can discuss only the profitability side of that which lightens up the importance of placement facility with central bank. As compared to conventional banks, Islamic banks placed their liquidity at 5-6% lower than floor rate within inter-bank market which have a main impact on their profitability. I can foresee that in near future we may have this facility for Islamic banks as well. However, if this facility come into place than Islamic banks can offer minimum deposit rate to their depositors which is not available till date."

RM1 summed up on the above question:

"Currently, there is a need of level-playing field for full-fledge Islamic banks to have same privilege as conventional banks in Pakistan. Apart from top 2 to 3 Islamic banks in Pakistan, it is difficult to establish a secured long-term inter-bank placements lines as the credit rating and their capacity for paying back is questionable in case of unexpected extensive stress situation."

The responses point to the theoretical model presented by Ismal (2011) that proposed Islamic monetary instruments for IBIs to manage the liquidity in an effective manner and adopted by few countries.

Steps to improve Liquidity Risk Management

RQ9 What area do you think should Islamic banks / Islamic windows should focus to improve the management of liquidity risk?

RM1 stated in response to this question:

"Usually, banks liquidity profile is conducted through balance sheet management on a broader perspective. We have observed that in foreign banks there is a focus on Deposits profiling using different technical tools. By using such techniques, banks study large sums of data in detail based on customer sector, customer profile and individual account-wise. It may help to improve the funding-side of Islamic Banks and overall liquidity risk management. There is a need to also look at liquidity metrics like LCR and NSFR by forecasting future based on historical behavior / patterns."

RM2 stated:

"In my opinion, profitability of bank is mainly dependent on the margin banks can make based on the placements of funds on the assets. As cost of fund in Islamic bank is much lower as compared to the conventional banks in Pakistan so the profitability in not directly dependent on the effective liquidity of Islamic bank in Pakistan. However, in general it plays a vital role for the profitability of banks."

Models to gauge Liquidity Risk in Islamic Banks

RQ10 As an Islamic Bank/IBI, did you adopt specific model to manage liquidity risk? and is it enough to cater for all the factors?

RM2 stated:

"We can't say there should be a specific model for Islamic banks which can be used to gauge their liquidity as the guidelines and methods used by the banks irrespective of the fact whether they are Islamic or conventional, is similar. However, we can improve methods and technologies to study customer profiling for better customer study."

RM1Stated:

"In my opinion, Basel III liquidity standards are quite comprehensive to identify the liquidity risk in Banks. They are accepted globally which can address bank's liquidity risk requirements in shorter and longer tenor. In terms of how they are managing their liquidity risk is clearly defined through liquidity risk frameworks, contingency funding plan and proactive role of ALCO members."

Use of Contingency Funding Plan (CFP) in Liquidity Risk Management

RQ11 Usually, Banks have Contingency Funding Plan (CFP) in case of stress situation and bank's plan of action. Did your bank have such a model? What is the structure in place?

RM2 added:

"Yes, we have developed CFP which is provided by the Treasury front office to watch for all the available sources of funding which may be utilized based on lender's capacity and Bank credit relations with them. We have defined some zones like business as usual,

moderate or trigger point which is reviewed on annual basis by Treasury front office, risk management department. This document contains all the roles and responsibilities of business units and back office if there is a trigger of CFP. Moreover, every department is equally responsible to handle such untoward situation.”

RQ12 Did you experience any situation where CFP have been triggered? What were the courses of actions by Risk Management / Finance / Treasury?

RM1 added:

“Fortunately, I didn’t observe a situation where CFP triggered in my banking experience including ten years of Islamic Banking experience. However, I remember an event where Bank’s LCR ratio deteriorated due to the classification of our Sukuk/Bonds as ‘Held to Maturity’ (HTM) securities, as these securities are illiquid in nature and not allowed to be part of our LCR calculation. In such situation, we ask central bank to allow us to include them in our calculation in order to comply regulatory requirement of 100%.”

TR1 added:

“On a day-to-day basis, banks usually didn’t sell their government securities to manage their liquidity. They usually use inter-bank borrowing to fund their liquidity requirements which may be unsecured (Clean) or secured (Repo borrowing). If in case there is any unexpected withdrawal of funds, the first course of action is to generate liquidity through interbank funds which is mentioned in our CFP documents. Similar step-by-step process needs to be followed mentioned in the CFP document.”

Kumar & Yadav (2013) emphasized on prudent liquidity management as part of the overall risk management of the banking institutions that ensures a healthy and stable banking sector.

Interview with Sharīʿah Advisors

Sharīʿah Advisors role is essentially centered towards Sharīʿah compliance in IBIs including guidance towards financial transactions, product development, and investment decisions. Moreover, the role of Sharīʿah advisors also extends towards identifying the potential risks associated with banks, such as ethical and legal risk. Liquidity risk falls under legal and financial risk where IBIs can potentially bear financial loss due to deterioration in liquidity as well as reputational risk due to inability to meet the obligations on time.

In this study, the Sharīʿah advisors view has also been included with regard to liquidity risk management and their role while developing a new product or approving it for making investment decision / financial transaction.

RQ13 While reviewing any new Islamic banking product, do you consider inherent liquidity risk in that product? Do you ask for mitigation from business units, if any?

SA1 responded:

"Yes, we consider the inherent liquidity risk for any product while reviewing the product from Sharīʿah perspective. If asset side product is based on Sale (Bai') then Islamic banks do not have option other than to wait till its maturity as compared to conventional banks where they are allowed to sale the financing to any other counterpart."

SA2 responded:

"Banks diversify their portfolios both in asset and liability side based on maturity as well as product nature to absorb any unexpected shock coming because of micro or macro-economic factors. We recommend business units to align their assets/liabilities maturities based on bank's internal appetite and macro-economic factors like profit rate, exchange rate etc."

RQ14 What steps do you take to minimize the liquidity risk for any specific product? Is there any model designed to gauge the liquidity risk of any product?

SA1 replied:

"From Sharīʿah perspective our main focus is on the permissibility side of the product. However, the nature of product is also discussed with business units to check the features and inherent risk related to it. In my opinion, liquidity risk management is dependent on the tenor of the product i.e., short term or long term and business view based on the balance sheet structure."

SA1 further elaborated with example:

"It depends on the nature of the product like if we take the example of Istisna product; if underline asset is readily available from manufacturer and buyer refused to get the delivery. In such a case bank should have the ownership and sell it in the open market which may take more time than expected."

SA2 stated:

"As risk management is more closely involved in the monitoring of liquidity risk on regular basis, while reviewing any product we get their consent regarding credit, market, operational and liquidity risk in order to identify if there is any significant impact on bank's balance sheet."

SA2 also mentioned:

"We also check/make sure if in case of stress, if we have to liquidate the asset then bank should have ownership of these assets in order to achieve the valid sale."

RQ14 In your opinion, did you observe any adherence from Sharīʿah compliance perspective which may impact the bank to manage their liquidity risk?

SA1 Stated:

"Sharīʿah Advisors focus more on compliance of Sharīʿah aspects rather than business decisions. Liquidity risk management is a role of ALM desk and risk management, and I don't think there is any resistance from Sharīʿah advisory team which may impact the IBIs liquidity. As I mentioned before, IBIs have multiple avenues to manage their liquidity while complying to Sharīʿah principles."

SA2 responded:

"In my view there is no restriction imposed by Sharīʿah advisors which may create hurdle to facilitate liquidity risk management. As from business point of view, it is very important to have effective risk management which matters for bank's reputation."

RQ15 In Pakistan, Commodity Murābaḥah is not considered to be viable option for the liquidity risk management. What are your thoughts on that?

SA1 added:

"In Pakistan, we usually call it 'Tawarruq', and this product is not recommended by Islamic scholars to be used too frequently due to its inhabitant nature. However, many IBIs are using it in Pakistan in multiple products like personal finance and credit cards. There are some special conditions which needs to be observed to be fully Sharīʿah Compliant and there is a doubt on that which makes it inexpedient to use by IBIs. Unless IBIs follow instructions as per the Sharīʿah ruling, as a Sharīʿah advisor I would say that there is no harm in using it for liquidity risk management."

RQ16 *Bayʿal-mu'ajjal* considered to be non-preferable product due to non-transferability of actual ownership of securities to the buyer. However, currently many Islamic Banks/IBIs use this product to manage their liquidity. What are your thoughts about this product from Sharīʿah perspective?

SA1 added:

"Yes, it is true that this product is not preferred by Sharīʿah Advisors to use in normal course of business but in last few years it has gained popularity in Pakistan when there is a shortage of Sukuk in the market and IBIs are unable to maintain their SLR ratios. In that situation, Sharīʿah advisors allow to use this product to place excess funds with conventional banks. From Sharīʿah angle, there is no restriction to use it but is not preferable to use it in normal course of business."

SA2 responded:

"From Sharīʿah guidelines, Bayʿal-mu'ajjal is permissible and can be used either for asset or liability products but in Pakistan it is not recommended by Sharīʿah advisors/scholars to use it on a regular basis due to the fact that there is a possibility that the same underlying asset for this transaction may be used for multiple transactions which is not allowed as per Sharīʿah ruling."

Observing these responses authors would like to point towards recent studies have come up with liquidity risk management tools that can overcome the shortcomings of *Tawarruq* (e.g., Dewaya, 2024).

CONCLUSION

This study focuses on the Islamic banking sector's liquidity risk management practices, challenges and possible alternatives in Pakistan. The study also touches upon the debate on prevailing liquidity risk management products from Sharīʿah perspective. In the last decade, the IBIs showed robust growth and increase in market share due to customers' preference / inclination towards this alternative banking system in Pakistan; this resultantly makes IBIs exposed to multiple risks including the liquidity risk, which is one of the major risks faced by banking institutions.

First, we discussed current practices of IBIs and drivers of liquidity risk management through in-person interviews from banking professionals. The respondents mentioned that liquidity risk management is a continuous process which is handled by both business teams and risk management units. ALCO is responsible for limit setting, monitoring and breach ratification of any liquidity risk metrics applicable to manage effective liquidity risk in IBIs. As per the responses gathered from risk professionals, drivers of liquidity risk include deposits profile, assets deployment, nature of funding, concentration of funding, systematic risk due to macroeconomic factors. All aforementioned components contribute towards healthy risk profile for any IBIs. Moreover, this study concludes from detailed interviews of bank professionals that IBI's practices is almost similar because IBIs approach to the challenges in a same manner and are equipped with same tools to manage their liquidity risk.

Later, the discussion moved towards challenges faced by IBIs in Pakistan related to liquidity risk; all the respondents agreed that 2019/2020 was a difficult time for IBIs as there was a crunch of Statutory Liquidity Requirement (SLR) eligible Sukuks during that period due to macro-economic factor, i.e., no fresh issuance of Government of Pakistan Ijārah Sukuk. Moreover, due to the absence of SBP (the Central Bank) placements windows, IBIs are compelled to place their excess funds in the secondary market mostly with conventional banks. Conventional banks borrowed those funds from IBIs through Bayʿal-mu'ajjal and placed it in the T-Bills (3M, 6M and 9M period) and earns risk-free spread over it. In addition to this, the shortest maturity of Sukuks available for IBIs in Pakistan is not less than 1 year compared to the conventional banks where T-Bills have respective maturity of 3, 6 and 9 month which makes them easier to manage short period liquidity with better rate of interest.

Each responded suggested the need of overnight placement facility from SBP for IBIs to deploy their excess liquidity at floor rate similar to conventional Banks in order to have a level-playing field. There is a recommendation / suggestion from one of the respondents to initiate in-depth study of IBIs customer deposits profiling by using historical withdrawal patterns through latest machine learning tools in order to enhance / forecast client's behavioral pattern.

Lastly, this study interviewed / discussed Sharīʿah advisors' role as a team in IBIs. As per the responses gathered from Sharīʿah advisors, they are more inclined towards Sharīʿah permissibility of products in IBIs and liquidity risk is mainly handled by business units and other stakeholders. However, they provide advise based on Sharīʿah principles, such as, a dire need to use less-preferred product like *Bayʿal-mu'ajjal* with conventional banks in case of excess liquidity within Islamic banking industry. To conclude, the findings of this study suggest that since Government of Pakistan has set a target to transform all the banking transactions / sector to be aligned with Sharīʿah guidelines, therefore it is very important that short-term money market Sharīʿah-compliant instruments must be introduced for smooth transitioning of conventional banks to Islamic banks that might not affect the profitability of the financial institutions.

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Appendix - 1

Interview Questions:

For Finance/ Risk Management / Treasury

1. In your opinion, what are the main drivers of Liquidity Risk of any Bank in general?
2. Is there any committee (like ALCO etc.) which oversees the liquidity risk of your bank? what is the frequency of committee meetings and what type of key liquidity ratios are discussed?
3. Do you think Islamic Banks/IBIs are more exposed to the liquidity risk compared to the conventional banks in Pakistan? What are the key challenges your bank faces while managing liquidity risk?
4. In 2019/2020, when Islamic Banks/IBIs operating in Pakistan have excess liquidity due to non-availability of Bonds/Sukuks, what steps your management had taken to deploy the excess liquidity?

5. In a scenario like 2019, when there was a shortage of Government based Sukuk, what was the alternate feasible option available to deploy the excess liquidity? Moreover, do the available options have an impact on the profitability of your bank?
6. If that situation persists longer than expected, did your bank have any alternative strategy to tackle the situation?
7. Due to aggressive issuance of Sukuk (shorter as well as longer tenor) in 2022 and 2023, do you think Islamic Banks/IBI's may face liquidity crunch in the foreseeable future?
8. In your opinion, should SBP also introduce overnight placement facility for Islamic banks to manage their liquidity, same as Muḍārabah Financing Facility?
9. What area do you think should Islamic banks / Islamic windows should focus to improve the management of liquidity risk?
10. As an Islamic Bank/IBI, did you adopt specific model to manage liquidity risk? and is it enough to cater for all the factors?
11. Do you think appropriate management of liquidity risk can help improve the profitability of a bank?
12. Usually banks have Contingent Funding Plan (CFP) in case of stress situation and bank's plan of action. Did your bank have such a model? What is the structure in place?
13. Did you experience any situation where CFP had been triggered? What were the courses of action of Risk Management / Finance/ Treasury?

For Sharīʿah Advisors:

1. While reviewing any new Islamic banking product, do you consider inherent liquidity risk in that product? Do you ask for mitigation from business, if any?
2. What steps did you take to minimize the liquidity risk for any specific product? Is there any model designed to gauge the liquidity risk of any product?
3. In your opinion, did you observe any adherence from Sharīʿah compliance perspective which may impact the bank to manage their liquidity risk?
4. In Pakistan, Commodity Murābaḥah is not considered to be viable option for the liquidity risk management. What are your thoughts on that?
5. Initially, *Bayʿal-mu'ajjal* considered to be non-Sharīʿah compliant product due to non-transferability of actual ownership of securities to the buyer. However, currently many Islamic Banks/IBIs use this product to manage their liquidity. What are your thoughts which make this product to be permissible from Sharīʿah perspective?