
Risk Management Practices of Islamic Banks in Pakistan

Masood Ahmad Khan¹, Muhammad Ishtiaq², Anisa Shamim³, Samra Subhani⁴, Qurat-ul-Ain Aini⁵
¹University of Agriculture Faisalabad Sub Campus Burewala,
^{2,3,4,5}Govt College University, Faisalabad

Abstract

The main focus of the research was finding out the extent to which banks were utilizing risk management practices in managing different risks and assessing management of risk measures of Islamic banks of Pakistan. This was an empirical research study which employed quantitative research methods. Secondary data of five banks was collected by using content analysis through annual reports from 2009 to 2014. Data was analyzed by using descriptive statistics and regression analysis. The dependent variable was liquidity risk and age, profitability, leverage, tangibility and size were used as independent variable. It was found that liquidity risk was mainly defined by leverage, tangibility and age. However, it showed a statistically insignificant relationship between size, profitability and liquidity risk. This research will be useful for Islamic banks, conventional banks, practitioners as well as from academic point of view.

Keywords: Islamic banks, Risk, Liquidity

1. Introduction

Islamic banking sector is growing rapidly among the financial sector showing an unexpected growth in the form of assets and number of financial institutions. For the last four years, the Islamic banking industry has seen a growth of 17.6% from 2009 to 2013. Banks face various types of risk that has negative influence on their performance. The main objective of risk management is to decrease this negative influence that risk has on the financial performance and capital of banks. Banks play an intermediary role between depositor and lender. The functions performed by the banks are provision of liquidity and financial services to the customers. They invest the accepted deposits from customers by providing the funds to the persons who need money in the form of loans. They convert the short term deposit into long term loans which generate revenue in the form of profit rate.

Risk measures the instability that a speculator will take to understand a pick up from a venture. Risks are of various sorts and start from various circumstances. Many organizations allot a lot of cash and time in creating risky administration procedures to assist oversees dangers related with their business and venture dealings. A key segment of the risk management process is risk appraisal, which includes the assurance of the dangers encompassing a business or venture.

The risk is of many forms such as liquidity risk, foreign exchange risk, credit risk, market risk and interest rate risk, which are serious threat to the banking industry in the form of failure of system. Therefore for survival and growth of this sector, there is need to manage the risk factors.

For smooth and successful running of business and to maintain a strong relationship with all stakeholders, there is need to manage the risk factors. The maintenance of bank reserves, high interest rate risk, and chances to minimize status of banks are some forms of risk factors. The embezzlement of funds or increase in withdrawing of amount in unfavorable economic situation are the main forms showing chances of liquidation of organizations. The financial crisis arises in form of higher chances of liquidation of deposit holder and others.

In modern world, risk management consists of activities that focus on minimizing the negative influence or danger to the financial performance of Islamic banks. Risk management happens once a money specialist purchases usually safe government securities over additional risky company securities, once a reserve supervisor supports his money presentation with money subordinates and once a bank plays out a credit by keeping a watch on someone before provision of private credit extension. Stockbrokers utilize monetary fund instruments like alternatives and fates, and money supervisors utilize procedures like portfolio and speculation growth, with a selected finish goal to alleviate or with the success of administering risk.

Corresponding Author: Masood Ahmad Khan, e-mail: masoodahmadkhan60@yahoo.com

1.1 Research Objectives:

- To find out the factors which influence the liquidity risk
- To evaluate Islamic Banks performance on the basis of liquidity risk determinants.

1.2 Research Questions:

- What are the factors affecting liquidity risk?
- What is the effect of liquidity risk on the performance of Islamic banks?

2. Literature Review:

The measurement of risk administration rehearses and its impact pulled a clever thought in corporate back composing over a drawn-out period of time. Carey (2001) perceived that risk administration is a basic for money connected or middle person associations like banks because the within goals of those foundations square measure to increase the livelihoods and to expand the wealth of investors by giving different methodology for fund organizations.

Bruinshoofd & Kool (2004) associated these expectations (esteem primarily based, theoretic and preliminary) to seem organization level measurement i.e. data asymmetries, cost and trade cost that portray the company liquidity raise. According to Oldfield & Santomero (1997) incontestable institution statements and benchmarks, creating of personal endeavors frameworks, principles, the course of action of reparation and inspiration agreements also the burden of rules and position limits square describe the basic risk administration policies about money connected associations.

Salas & Saurina (2002) inspected about tiny and enormous index stage for the determination of loan peril of venture assets and business banks from 1985-1997 of Spain. They found that growth of banks, gross domestic product improvement rate, un-skillfulness, capital extent, internet premium edge; potential of market and size had a great effect on credit risk in the banks of Spain.

By taking twenty banks of Japan, Khambata & Bagdi (2003) investigated the credit risk. They found that the banks in Japan used less OBS instruments, a lot of risk unwilling and regular than USA and European banks. Linbo Fan (2004) considered risk verses capability in the banks of USA and incontestable that advantage potency had a robust association between obligation and loan shot whereas chances to liquidity had no contribution in taking advantage regarding viability of USA national banks.

Holmium Hahm (2004) reviewed association between the swapping index and credit value presentation on business in Korea and shipper banks in pre-crises amount. The findings exhibited that premium and transformation index risk was primarily moving business financial organization especially banks in Korea.

Ninimaki (2004) investigated the impact of competition on risk of banks and located level of risk depending upon facet and market structure within the happening of rivalry. Wetmore (2004) examined association of focus store extent to growth and liquidity risk of businesses. The results found that focus store extent to credit extended in relation to conformity in liquidation aspect.

Al-Tamimi & Al-Mazrooei (2007) studied on the management of risk policies and procedures along with the comparison of these policies and procedures of national and International banks working in the United Arab Emirates. For this study, they formulated forty five questionnaires for the finding various forms of risks. They founded that the banks working in UAE were good in working with respect to recognition of risk, analyzing of risk and handling factors of risk to a great extent, but they were faced with threat with respect to working, loans and functioning of foreign currency.

Ishaq & Bokpin (2009) investigated the factors affecting handling of liquidation of firms listed at the stock exchange of Ghana between 1997 and 2007. The main purpose of this study was to find out the association. Their findings exhibited frameworks organization funds, firm's size, and comes back on economic resources owned by the organizations square measure basic indicators of chances of liquidation of organizations listed at stock exchange of Ghana.

Ismal (2010) studied handling of danger of default of Islamic banks in Indonesia by taking the data between 2000 and 2007. The findings exhibit that LRM record offers a huge survey for handling the chances of default of banks working in Indonesia. Asian nation, the research has a low level associated with influence of full index and index down index calculates on risk management practices of Islamic banks of Asian countries. Ahmed, 2011 tried to examine the affiliation's a level determinants of liquidity risk of recorded Islamic banks of Asian nation. Thus, liquidity risk was used as variable whereas size, substance of benefits, utilize, profit and age square measure were used as a variable quantity. The results exhibit that utilization important quality and age square measure imperative a factors explaining about threat of liquidation whereas chances of liquidation to occur has quantifiably unimportant association between productivity and volume of Islamic banks working

in Pakistan.

Asma (2016) collected secondary data of five Islamic and Conventional Banks of Pakistan from annual reports and statistical analysis done by the State Bank of Pakistan from 2008 to 2013 for comparing Islamic and conventional banks. She found that Islamic banks are observed to be essentially not quite the same as their ordinary partners in risk distinguishing proof, chance administration rehearses, liquidity chance investigation and chance administration. Besides, chance appraisal and examination, credit chance examination and risk management are the most impacting and contributing factors in risk management practices of banks working in Pakistan.

3. Research Methodology

3.1 Data Techniques:

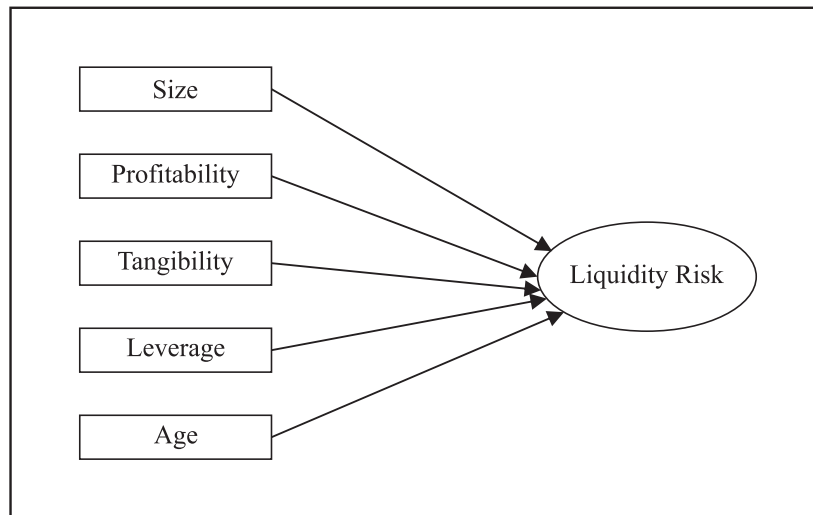
There are fourteen Islamic Banks working in Pakistan. I selected data of six Islamic Banks out of these. I used secondary data for this studying purpose. I took data from published annual reports for the period from 2009 to 2014. I applied descriptive statistics and regression techniques.

3.2 Variables Measurement:

- Liquidity risk = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$
- Size = $\text{Log of Total Asset}$
- Tangibility = $\frac{\text{Fixed Assets}}{\text{Total Assets}}$
- Leverage = $\frac{\text{Total Debt}}{\text{Total Assets}}$
- Profitability = $\frac{\text{Net Profit}}{\text{Total Assets}}$
- Age = $\text{Operational Year} - \text{Study year}$

Conceptual Framework:

3.4 Model Specification



$$LIQ\ RISK_{it} = \beta_0it + \beta_1SZ_{it} + \beta_2TANG_{it} + \beta_3LEV_{it} + \beta_4PROF_{it} + \beta_5AG_{it} + \mu_{it}$$

3.5 Hypotheses Development

On the basis of the above objectives, the following are developed:

- There is a significant positive relationship between profitability and liquidity risk.
- There is a significant positive relationship between size and liquidity risk.
- There is a significant positive relationship between age and liquidity risk.
- There is a significant positive relationship between leverage and liquidity risk. There is a significant positive relationship between tangibility and liquidity risk.

4 Data Analysis and Results

4.1 Descriptive Statistics

The descriptive result is showing that 7.86 years is the average age of selected Islamic Banks. The mean value of leverage which is the mixture of debt and capital is 0.09 which seems to be insignificant result. 0.88 is the average value of tangibility which means that out of total assets, major portion of fixed assets is being used by the banks. The mean value of size is 20.01. However, 27% is the contribution of profitability in relation to total assets which is expected to be significant.

	Minimum	Maximum	Mean	Std. Deviation
Age	3	9	7.86	5.964
Leverage	0.16	0.52	0.0999	0.8991
Tangibility	0.05	0.98	0.8809	0.26948
Liquidity risk	0.16	1.56	0.2687	0.24684
size	16.18	21.87	20.0136	1.54201
Profitability	0.10	0.32	0.2796	0.07974

Table 4.1: Descriptive Statistics

4.2 Regression Analysis

As per F value, the model of this study is reliable and fit. The adjusted value of R square is 69%. It shows that the variation between dependent and independent variables is 0.69. It means independent variables have 69% influences on the liquidity risk. Remaining 31% influences is due to some other variables. The study found/concluded that profitability has an insignificant positive impact on liquidity risk. It means that hypotheses one is rejected. There is insignificant relationship between size and risk. It means that hypothesis two is rejected. However, age and leverage are significant positive related with liquidity risk. It means that Hypotheses three and four are accepted. Tangibility is significantly negative related with risk. The results indicate that age, leverage and tangibility have show a relationship and impact on the liquidity risk.

Table 4.2: Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.882	0.887		0.99	0.445
Profitability	0.634	0.494	0.324	1.35	0.176
Size	-0.019	0.033	-0.243	-0.66	0.498
Age	0.019	0.004	0.449	3.26	.005**
Leverage	1.396	0.541	0.669	2.99	.005**
Tangibility	-0.496	0.93	-0.517	-4.45	.000*

R2 value = 0.713 R2
*Significant at 1%

adjusted value = 0.694
**Significant at 5%

F statistics = 13.243

5 Conclusion

The purpose of the current study is to find out factors affecting the risk of Islamic Banks for the period from 2009 to 2014 and to evaluate the practices for the management of liquidity risk. The study found that age,

leverage and tangibility are major indicators which are affecting the liquidity risk. However, variables size and profitability are not showing any relationship with liquidity risk. Therefore, these two variables are not the determinants of liquidity risk.

This study will be helpful for all stakeholders of Islamic banks and all other financial institutions for risk identification and measurement purposes. The researchers will get knowledge from this work.

References

- Ahmed, H. (2006), "Assessing risk management system: an application to Islamic banks", paper presented at the 7th Harvard University Forum on Islamic Finance, Boston, MA, April 22-23.
- Ahmed, N. (2011), "Liquidity Risk and Islamic Banks: Evidence from Pakistan" *Interdisciplinary Journal of Research in Business*, Vol. 1 Issue. 9 (pp99-102) September, October 2011.
- Al-Tamimi, H. (2002), "Risk management practices: an empirical analysis of the UAE commercial banks", *Finance India*, Vol. 16 No. 3, pp. 1045-57.
- Al-Tamimi, H. and Al-Mazrooei, F. (2007) "Banks' risk management: a comparison study of UAE national and foreign banks", *The Journal of Risk Finance*, Vol. 8 No. 4, 2007, pp. 394-409.
- Anderson, R.A., Sweeney, D.J. and Williams, T.A. (1990), *Statistics for Business and Economics*, West Publishing Company, St. Paul, MN.
- Antonio, S. (1999), *Sharia Bank for Bankers and Practitioners*, 1st ed., Bank Indonesia and Tazkia Institute, Jakarta.
- Basel Committee on Banking Supervision (1999), "Principles for the management of credit risk", Consultative paper issued by the Basel Committee on Banking Supervision, issued for comment by 30 November, p. 3.
- Bruinshoofd, W.A. and Kool, C.J.M. (2004), "Dutch corporate liquidity management: new evidence on aggregation", *Journal of Applied Economics*, Vol. 7 No. 2, pp. 195-230.
- Carey, A. (2001), "Effective risk management in financial institutions: the Turnbull approach", *Balance Sheet*, Vol. 9 No. 3, pp. 24-7.
- Devellis, R.F. (1991), "Index development: theory and application", *Applied Research Methods Service*, Vol. 26, Sage Publications, Newbury Park, CA.
- Emirates Banks Associations (2004), "Financial position of commercial banks in the UAE", Emirates Banks Associations, Abu Dhabi.
- Hahm, J.H. (2004), "Interest rate and exchange rate exposures of banking institutions in pre-crisis Korea", *Applied Economics*, Vol. 36 No. 13, pp. 1409-19.
- Ismal, R. (2007), "Islamic banking issues on liquidity risk management", paper presented at Ustinov College Finance Seminar, Durham University.
- Ismal, R. (2008a), "Analysis of liquidity risk management practices in Islamic banking industry", unpublished academic paper, February, Durham University, Durham.
- Ismal, R. (2008b), "The potential of liquidity risk in Islamic banking", paper presented at Summer School in Islamic Banking and Finance, Durham University, February.
- Ismal, R. (2010), "Assessment of liquidity management in Islamic banking industry", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 3 No. 2, 2010, pp. 147-167
- Keynes, J.M. (1936). *The General Theory of Employment, Interest and Money*, Macmillan, London.
- Khambata, D. and Bagdi, R.R. (2003), "Off-balance-sheet credit risk of the top 20 Japanese banks", *Journal of International Banking Regulation*, Vol. 5 No. 1, pp. 57-71.
- Linbo Fan, L. (2004), "Efficiency versus risk in large domestic US", *Managerial Finance*, Vol. 30 No. 9, pp. 1-19.
- Niinima"ki, J.-P. (2004), "The effects of competition on banks' risk taking", *Journal of Economics*, Vol. 81 No. 3, pp. 199-222.
- Nunnally, C.J. (1978), *Psychometric Theory*, McGraw-Hill, New York, NY.
- Oldfield, G.S. and Santomero, A.M. (1997), "Risk management in financial institutions", *Sloan Management Review*, Vol. 39 No. 1, pp. 33-46.
- Salas, V. and Saurina, J. (2002), "Credit risk in two institutional regimes: Spanish commercial and savings banks", *The Journal of Financial Services Research*, Vol. 22 No. 3, pp. 203-16.
- Selltiz, C., Wrightsman, L.S. and Cook, W. (1976), *Research Methods in Social Relations*, Holt, Rinehart and Winston, New York, NY.
- Wang, A.T. and Sheng-Yung, Y. (2004), "Foreign exchange risk, world diversification and Taiwanese ADRs", *Applied Economics Letters*, Vol. 11 No. 12, pp. 755-8.
- Wetmore, J.L. (2004), "Panel data, liquidity risk, and increasing loans-to-cor deposits ratio of large commercial bank holding companies", *American Business Review*, Vol. 22 No. 2, pp. 99-107.