

Factors Affecting Liquidity Risk of Banks: Empirical Evidence from the Banking Industry of Bangladesh

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Abstract:- The objective of the research is to determine the factors varying the liquidity risk of Conventional and Islamic Shariah-based banks in Bangladesh. The random effect model is used in the study to detect the relationship between liquidity risk and each of the independent variables. The study shows that 7 of the variables including loan-to-asset ratio, cash ratio, equity ratio, size, return on asset, return on equity, and capital adequacy ratio are the significant determinants for conventional banks whereas loan to asset ratio, return on asset, cash ratio, and capital adequacy ratio are the significant determinants in Islamic banks. It is also found that the loan to asset ratio and return on asset have a positive impact but capital adequacy ratio, cash ratio, age of the bank, equity ratio & the size of the bank has a negative impact on the liquidity risk in both conventional and Islamic banks. The findings of this study can be very useful for different parties who want to find the relationship between firm-specific factors and the liquidity risk of the banking industry.

Keywords:- Liquidity; Risk; Cash ratio; Return on Asset; Equity; Loan to Asset Ratio.

I. INTRODUCTION

The banking industry is the most prominent sector which contributes directly in case of financing all the other sectors or businesses. To survive in the banking business liquidity is the most important factor. So the banks are more concerned with their liquidity position (Laštůvková, J., 2017). Sometimes banks face excess liquidity and sometimes liquidity shortfall. So maintaining appropriate liquidity position is very much important.

Liquidity means any organizations enough capital that is on hand for investment as well as for its spending. If we think from the viewpoint of bank liquidity means the bank's capability to meet up its anticipated or unanticipated need aroused by deposit withdrawals. Moreover the need can occur from maturing its loan request or arising liability exclusive of any loss (capital).

Liquidity risk is the risk which a bank faces when it is unable to meet the obligation of its clients. If this risk increases than its normal level it will hinder the financial condition as well as reputation of the bank (Mohammad, S., 2014). Liquidity risk falls in major 2 categories. One is market liquidity risk and another one is funding liquidity risk. When

there is crisis in market or the bank is unable to access in the market it is called market liquidity risk. If the banks are unable to meet its obligation to its obligators it is called funding liquidity need. It is closely related to banks solvency. This study basically focuses on the 2nd one. As liquidity risk is a major issue all the banks are now very much serious about the liquidity risk management which involves the following 2 things: evaluate the necessity of fund to meet up the depositor's obligation and providing the availability of liquid asset to meet up those obligations in time.

So to maintain the proper liquidity management at first it's important which variables affect the liquidity position of the bank. This study will try to find those variables and their significance level on liquidity risk. Moreover through this study different concerned party will be able to see whether the affecting variables are same for the conventional and Islamic bank. The study starts with literature review, variables, research model and estimation. Final section includes analysis, conclusion and references.

II. LITERATURE REVIEW

In countries all over the world, there is a lot of literature that can be gazed at to figure out what causes liquidity risk and how it affects bank performance. A study was conducted by Tijani Amara and Tharwa Najar (2021) on liquidity risk and its impact on bank performance. This study basically examined the effect of liquidity risk on bank performance in the Middle East and North Africa region by comparing conventional and Islamic banks (MENA). The independent variables are Bank Size, Liquidity Gap, Capital Adequacy Ratio, and Return on Assets; the macroeconomic factors are Bank Age, Domestic Product Growth Rate and Inflation Rate; and the dependent variable is Liquidity Risk. During the period of 2006 to 2018, a sample of ten Islamic banks and twenty-five conventional banks from the MENA region was utilized. The results demonstrate that these variables have diverse effects on the liquidity risk of both institutions. In addition, they discovered that the increase in CAR in Islamic and conventional banks has no effect on liquidity risk.

Moreover Osama Omar Jaara et al. (2017) also wanted to know what influences conventional and Islamic banks' liquidity exposure. They also intended to find out how the global financial crisis affected liquidity exposure. They aimed to strengthen the bank's liquidity risk resilience. From 2005 to 2012, they considered 204 banks from Southeast Asia, the

Middle East, and North Africa. They conducted regression analysis, univariate analysis, financial ratios and descriptive statistics to test the dependent-independent variables relationship. They also tried to show the 2008 financial crisis's impact on conventional and Islamic bank liquidity management. Islamic bank had the biggest liquidity exposure compared to traditional banks, according to a study. Non-earning assets to total assets, financial crises, GDP, off-balance sheet items, banks' gearing, total securities detained by banks, and liquid assets are key predictors of liquidity exposures, according to the study. The report suggested using external financing to fulfill short-term liquidity needs.

In 2016, Waeibrorheem Waemustafa and Suriani Sukri conducted a study in Malaysia. The author intended to examine the systematic and unsystematic drivers of LRM from both the Islamic and conventional banking perspectives. From 2000 to 2010, data were gathered for the research. Four variables out of fourteen firm-specific variables significantly affect the liquidity risk of an Islamic bank, according to the study. Alternatively, five of the thirteen firm-specific characteristics impact the liquidity exposure of conventional banks. In Bangladesh, Faruque Ahamed (2021) also tried to find out the internal and external factors that influence the liquidity risk of Bangladesh's commercial banks. The study was conducted utilizing data from 23 banks from 2005 to 2018, and regression analysis was conducted using panel data. Asset size shows a negative correlation with liquidity risk among the bank-specific characteristics. The greater a bank's liquidity position and the lesser its liquidity risk. The relationship between liquidity risks and return on equity and capital adequacy ratio is positive but minor. Regarding macroeconomic issues, inflation has a negative impact on liquidity concerns, whereas GDP and domestic credit have a positive impact.

Furthermore, Sopan J. & Dutta, A. (2018) looked at the bank-specific and macroeconomic factors that affect a bank's liquidity holdings to figure out what causes liquidity risk in Indian banks. In the study, the size of the bank, the rate of deposits, the bank's profitability, the quality of its assets, the cost of funding, and the rate of capitalization were the bank specific factors. While the GDP growth rate and the rate of inflation was the macroeconomic factors that affect the liquidity position of bank. The study used a panel data analysis on 45 Indian banks, including State Bank of India (SBI) group banks, nationalized banks, and private banks, over a period of 12 years, from Financial Year (FY) 2005 to FY 2016. This was done to figure out how these factors affected the liquidity of banks. The results of the empirical analysis showed that Indian banks' liquidity risk is affected negatively by their size, level of profitability, cost of funding, and the quality of their assets. While the rate of deposits and the rate of capitalization both has positive influence. The inflation rate and GDP growth rate are two macroeconomic factors that have a positive and a negative effect on bank liquidity, respectively.

Sukmana & Suryaningtyas (2016) examined the relationship between liquidity risk and bank-specific factors. From this study it was found that ROA has a positive and substantial relation with liquidity risk, while CA ratio has a

negative and significant relationship with the Indonesian conventional banks' liquidity risk. In Islamic banks, capital adequacy ratio reduces liquidity risk while return on assets increases it.

Khemais Zaghoudi and Abdelaziz Hakimi (2017) concluded that The liquidity risk of Tunisian banks is determined by internal bank characteristics (credit risk, degree of capitalization, and size), industry-wide factors (structure of the banking sector), and the international factor (international financial crisis). Regarding macroeconomic variables, their effects vary. In contrast to economic growth, which has a positive and considerable influence on the liquidity risk of Tunisian banks, inflation has a negative but insignificant impact. A study based on liquidity risk of commercial banks authorized in Kenya between 2010 and 2014 was undertaken by Mugenyah (2015). He employed multiple regression model to analyze the effects of ownership type, leverage, leverage, size, liquid assets ratio, and capital adequacy ratio on liquidity risk. The study found that while leverage, ownership type, the ratio of liquid assets and size had negative impact on liquidity risk, capital adequacy had a favorable impact on it.

In 2015 another study was conducted by Md. Lutfor Rahman and S.M Hasanul Banna in Bangladesh. The main concern of the study was to find out the determinants of LRM in case of both Conventional and Islamic bank. They have taken 6 banks (3 conventional banks and 3 Islamic banks). The study was conducted by taking the data from 2007 to 2011. To see the relationship between independent and dependent variable they used net working capital, CAR, ROA, Size of the bank, Return on equity as independent variable and liquidity risk as dependent variable. From the regression analysis it was found that some factors have significant relationship with liquidity risk. On the other hand some factors have insignificant relationship. But this doesn't mean that they have no effect on the liquidity risk rather this is due to information insufficiency. The result of the study showed that NWC and size of the bank has insignificant relation with liquidity risk in case of Islamic bank. On the other hand in case of conventional bank size of the bank has negative relation with liquidity risk. Moreover return on asset has significant relation with the dependent variable.

A study by Almunani (2013) used panel regression on 25 commercial and Islamic banks between 2007 and 2011. The results showed that bank size, investment to asset ratio, loan to deposit ratio, and return on equity had negative correlations with liquidity risk in both IB and CB, but debt to equity, capital adequacy, and return on assets had positive relationships with liquidity risk. According to the author, both Islamic and non-Islamic commercial banks' excess liquidity had a detrimental effect on their profitability.

Ahmed et al. (2011) also conducted a study on liquidity risk over the period of 2006-2009 by considering six Islamic banks in Pakistan. From that study it was found that asset management is positively associated to liquidity risk. In contrast, bank size has a negative relationship with liquidity risk, while the capital adequacy ratio has a strong and positive relationship with liquidity risk. The findings go against the

conclusions of some of the above findings which showed that a significant amount of capital lowers the liquidity risk of banks.

Abdullah and Khan (2012) discovered that there is a negative correlation between the size of the bank and liquidity risk of Islamic banks. Additionally, from 1994 to 2009, Sulaiman et al. (2013) examined the determinants of liquidity risk in Islamic banks. The findings showed that size and liquidity risk are adversely associated. In the same area, Dietrich et al. (2014) identified negative correlation between bank size and liquidity. The research done by Ghenimi et al. (2018) also supports these findings.

The above literature review indicates that liquidity risk doesn't significantly depend on all the independent variables all the time. Sometimes it has significant relationship with some independent variable and sometimes insignificant relationship with other variables. Different banks size is different. So based on the bank size it varies on different variables. Besides that most of the studies have been conducted all around the world but not much works have been done in Bangladesh.

III. RESEARCH METHOD

In this study, 20 conventional listed banks and 6 listed Islamic banks have been chosen from the banking industry of Dhaka Stock Exchange (DSE). Data have been collected from the annual report and 14 years' data have been used for the effectiveness of the model. For this study, liquidity risk has been selected as dependent variable whereas loan to asset ratio, ROA, ROE, CAR, cash ratio, equity ratio, age of the bank and size of the bank have been taken as independent variables. The variables have been selected based on different previous studies conducted in other countries. When analyzing different previous studies, it has been observed that the researchers have used different proxy to measure the liquidity risk like cash to total asset, differences of loan and deposit to total asset, risk weighted asset, deposit to total asset ratio etc. For the proxy, difference between loan and deposit to total asset ratio has been used to appropriately represent the liquidity risk of the company. The explanations of dependent and independent variables are presented in table 1.1.

Table 1.1: Proxy of variables

Symbol	Variables	Proxies	Expected relationship
Y ₁	Liquidity risk	Difference between loan and deposit to total asset	
X ₁	Loan to asset ratio	Total loan to total asset	Positive
X ₂	ROA (Return on Asset)	Profit after tax to total asset	Positive
X ₃	ROE (Return on Equity)	Profit after tax to equity	Positive
X ₄	CAR (Capital Adequacy Ratio)	(Tier 1 plus tier 2 Capital)/ Risk weighted asset	Negative
X ₅	Cash ratio	Cash to total asset	Negative
X ₆	Age of the firm	-	Negative
X ₇	Equity ratio	total equity to total asset	Negative
X ₈	Size of the bank	Log of total asset	Negative

This study is being undertaken to determine how various variables affect liquidity risk by using the linear regression model. For this research the following multiple regression model will be used:

$$Y_1 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \epsilon$$

But there will be separate model for the conventional and Islamic bank.

Model 1 for conventional bank:

$$Y_{1c} = \alpha + \beta_{1c} X_{1c} + \beta_{2c} X_{2c} + \beta_{3c} X_{3c} + \beta_{4c} X_{4c} + \beta_{5c} X_{5c} + \beta_{6c} X_{6c} + \beta_{7c} X_{7c} + \beta_{8c} X_{8c} + \epsilon$$

Model 2 for Islamic bank:

$$Y_{1I} = \alpha + \beta_{1I} X_{1I} + \beta_{2I} X_{2I} + \beta_{3I} X_{3I} + \beta_{4I} X_{4I} + \beta_{5I} X_{5I} + \beta_{6I} X_{6I} + \beta_{7I} X_{7I} + \beta_{8I} X_{8I} + \epsilon$$

Where,

α = Constant

β = slopes of the independent variables of the regression

ϵ = Error

c = Conventional bank

I = Islamic bank

Throughout the whole study it has been tried to show whether the independent variables are related to the dependent variable, liquidity risk.

So, here is the null hypothesis:

H₀: There is no significant relationship between liquidity risk and the independent variables (ROA, CAR, ROE, Loan to total asset ratio, Cash ratio, Age of the bank, Equity ratio, Size of the bank).

The alternative hypothesis is

H₁: There is a significant relationship between liquidity risk and the independent variables (ROA, CAR, ROE, Loan to total asset ratio, Cash ratio, Age of the bank, Equity ratio, Size of the bank).

Different financial tools and methods, such as maximum, minimum, mean, standard deviation, coefficient of variation, Pearson's correlation, multiple regression, etc., were used to compare and analyze the collected data. Using multiple regression analysis findings are presented based on types of banks.

IV. RESULTS AND DISCUSSION

Descriptive Statistics: Descriptive statistics shows the whole summary of the data set which includes the number of observation, mean, standard deviation, minimum, maximum value of the variables.

Table 1.2 shows the summary report of the variables for both banks. Here it can be observed that the mean value of liquidity is 79.38% for conventional bank and 82.16% for Islamic banks.

Table 1.2: Descriptive Statistics (Conventional and Islamic bank)

Variables	Mean		Standard Deviation		Minimum		Maximum	
	Con	Isl	Con	Isl	Con	Isl	Con	Isl
LR	.7938	.821	.0526	.0495	.6055	.6871	.8940	.9090
Loan to Asset ratio	.6754	.7420	.0610	.0419	.4907	.6420	.8076	.8374
ROA	.0129	.0113	.0068	.0059	-.0074	.0033	.0509	.0305
ROE	.1574	.1481	.0906	.0578	.0017	.0410	1	.3070
CAR	11.79	11.82	1.425	2.09	6.31	1.27	15.42	16.65
Cash ratio	.0675	.0883	.0132	.0233	.0333	.044	.1205	.156
Log age	1.269	1.204	.197	.1616	.845	.845	1.716	1.531
ER	.0847	.0750	.0186	.0186	.0074	.033	.1467	.1115
Log Size	11.11	11.19	.3002	.3533	8.754	10.47	11.56	11.95

Here it can be noticed that in case of loan to total asset ratio its mean value is very high which is 67% and 74.20% respectively. On the other hand, the rates for ROA, cash ratio and equity ratio of the banks are very low. Moreover, capital adequacy ratio is good. It increases the liquidity position of the bank. So it can be concluded that some variables position high and some variables position low.

This may be relation between independent variables or this may be relation between dependent and independent variables.

Correlation Matrix: Correlation matrix basically shows the relationship between different variables.

Table 1.3 represents how the variables are correlated with each other. Liquidity risk has positive relation with loan to asset ratio, ROA, Cash ratio. It has negative relation with ROE, CAR, Age, Equity ratio and Size of the bank.

Table 1.3: Correlation Matrix (Conventional bank)

LR	Loan	ROA	ROE	CAR	LR	log Age	ER	log Size	
LR	1.0000								
Loan	0.1455	1.0000							
ROA	0.0714	0.2599	1.0000						
ROE	-0.0248	0.0463	0.4760	1.0000					
CAR	-0.2950	-0.1158	-0.0987	-0.0345	1.0000				
Cash	0.1276	-0.3147	-0.0629	0.0918	0.1470	1.0000			
Log Age	-0.2101	-0.3763	-0.0600	-0.1602	0.0665	0.1280	1.0000		
ER	-0.2238	0.0804	0.5094	-0.1895	0.0578	-0.2624	0.2351	1.0000	
Log Size	-0.2393	-0.0363	-0.1767	-0.6953	0.1159	0.0127	0.4389	0.2578	1.0000

Lastly, if we look at the Loan to total asset ratio, it has a positive relation with ROA, ROE, and Equity ratio and negative relation with CAR, Cash ratio.

equity have a negative relation with liquidity risk. CAR, equity ratio has also negative relation with liquidity risk. Moreover, by observing the other variables it can be also said that Loan to total asset has a positive relation with ROA, ROE, cash ratio, and size of the bank. On the other hand, it has negative relation with CAR, age, and equity ratio. In such way, all the variables are correlated with liquidity risk.

Then correlation matrix from table 1.4 explains the relationship between variables for Islamic Shariah-based banks. Here it can be observed that return on asset and return on

Table 1.4: Correlation Matrix (Islamic bank)

	LR	Loan	ROA	ROE	CAR	Cash	Log Age	ER	log Size
LR	1.0000								
Loan	0.4099	1.0000							
ROA	-0.3029	0.0753	1.0000						
ROE	-0.1981	0.1750	0.9075	1.0000					
CAR	-0.3731	-0.3057	0.1533	0.0107	1.0000				
Cash	0.3147	0.2193	0.0890	0.0948	0.0122	1.0000			
Log Age	0.1969	-0.0686	-0.3239	-0.3077	0.2097	0.2159	1.0000		
ER	-0.3670	-0.2007	0.5903	0.2301	0.3660	0.1058	-0.1928	1.0000	
Log Size	0.2919	0.1374	-0.3732	-0.3728	0.1562	0.3642	0.8256	-0.2196	1.0000

VIF test:

Variance inflation factors (VIF) Test is conducted to see whether there is any multicollinearity problem between the variables. Table 1.5 describes the VIF test results for both conventional and Islamic banks. It shows that all the

independent VIF value is less than 10 for the conventional banks. So it can be said that there is no multicollinearity problem between the independent variables.

Table 1.5: VIF test

Variables	VIF		1/VIF	
	Con	Isl	Con	Isl
ROE	3.78	51.67	0.264315	0.019352
ROA	3.15	37.36	0.317074	0.026767
Log size	2.85	10.58	0.351489	0.094554
ER	2.54	4.94	0.393516	0.202541
Log age	1.74	3.73	0.575989	0.267754
Loan	1.43	1.53	0.697464	0.653628
Cash ratio	1.29	1.42	0.775650	0.704338
CAR	1.11	1.40	0.903369	0.716513
Mean VIF	2.24	14.08		

But in case of the result of Islamic bank, the scenario is different. Three variables' value is more than 10. So there prevails a multicollinearity problem among the independent

variables. So here the test has been again conducted after removing one variable (ROE).

Table 1.6: VIF test (Islamic Bank)

Variables	VIF	1/VIF
Log size	4.35	0.229736
Log age	3.62	0.276584
ROA	1.92	0.521807
ER	1.90	0.526372
Loan	1.42	0.704359
CAR	1.38	0.722316
Cash ratio	1.31	0.761137
Mean VIF	2.27	

So, in table 1.6 all the variables' value is less than 10. That means there is no multicollinearity problem between the independent variables. **Heteroscedasticity Test:** The assumption of the heteroscedasticity test is that there would be no constant variance. But for running the regression the dataset should have constant variance. This study also did this test on the dataset. Here it was found $prob > Chi2 = .4271$ that means null hypothesis of the test is accepted and there is no heteroscedasticity in the dataset.

Regression Analysis: Through the housman test, it was found that for both conventional and Islamic banks, the random effect model is perfect.

Table 1.7 contains the regression result of model 1. Here at first considering the R square. it can be said that 47.62 % of the variation in liquidity risk exposure can be explained by the independent variables. Then through the p-value analysis significance level of the independent variables with dependent variables can be understood. If p- the value is less than .05 it can be said that there is a significant relationship between the dependent and independent variables. This study reveals that all the independent variables have a significant relationship with liquidity risk at a 5% significant level.

Observing the loan-to-asset ratio, we can say that if this ratio changes by 1% then the liquidity risk of the bank will change by 10.97%. If the return on asset changes by 1% then

the liquidity risk of the conventional bank will change by 72.77%. So this is the most influential variable.

Table 1.7: Empirical Results of Model I (Conventional Bank)

Random Effect Model				
Variables	Coefficient	Z – statistics	p> z	Significance level
Intercept	1.661068	8.81	.000	√
Loan	.1097639	2.34	.019	√
ROA	3.727745	5.00	.000	√
ROE	-.3759044	-6.11	.000	√
CAR	-.0041137	-2.74	.006	√
Cash	-.5560412	-2.23	.025	√
Log age	-.0706468	-1.60	.110	√
ER	-.9740086	-4.13	.000	√
Log size	-.0668988	-3.39	.001	√
Co-efficient of determination	.4762			
Prob >F	.000			
Significance level	5%			

If the ROE changes by 1% then LR will be changed by 37.59%. Moreover, considering equity ratio, it is perceived that if this ratio changes by 1% then the

LR will be changed by 97.40%. So Liquidity risk is mostly affected by the equity ratio in the case of conventional banks.

Furthermore, it can be demonstrated through z statistics that all of the independent variables have values greater than 1.96. Therefore, we may conclude that all the independent variables significantly affect the bank's liquidity risk. Then in

the above regression table it can be noticed that Prob > F is less than .05. The relationship can thus be explained well by the model. As seen from the aforementioned research, loan to asset ratios and ROA ratios have a favorable association with liquidity risk, which is also corroborated by Sukmana & Suryaningtyas (2016). On the other hand, the conventional bank's liquidity risk is negatively correlated with ROE, cash ratio, CAR, size, age, and equity ratio. Without ROE, every variable satisfied the study's initial hypothesis.

Table 1.8: Empirical Results of Model II (Islamic Bank)

Variables	Coefficient	Z - statistics	p> z	Significance level
Intercept	.6156053	2.26	.024	√
Loan	.3397898	2.27	.023	√
ROA	1.80228	1.99	.043	√
CAR	-.0058153	-1.97	.049	√
Cash	-.5563172	-2.16	.031	√
Log age	-.0440984	-.71	.476	X
ER	-.261033	-.67	.503	X
Log size	-.0035419	-.11	.909	X
Co-efficient of determination	.5735			
Prob >F	.0000			
Significance level	5%			

Table 1.8 illustrates the regression results for Islamic banks. In this model, 57.35% of the variation in liquidity risk exposure is explained by the independent variables. At a significance level of 5%, the result indicates that four independent variables have a significant relationship with liquidity risk. The factors are loan-to-asset ratio, cash ratio, return on asset, and cash ratio. At a significance level of 10%, however, all independent factors have a significant impact on

LR. In addition, the above analysis demonstrates that Prob. > F is smaller than .05. So the model is good to explain the relationship. Here loan to asset ratio shows that the p>z value is .023 which is less than .05. That means loan to asset ratio has a significant relation with the liquidity risk of the Islamic banks. Moreover, from z value it can also observed that the value is also

more than 1.96. So from both the perspective this ratio has significant relation with LR. The coefficient of the variable is .33979. That means loan to asset ratio has significant impact on LR. ROA has also significant impact on LR. Bank should concentrate on this variable. This is the most dominant variable in the analysis. Besides, CAR, cash ratio, age, equity ratio, and size have negative relation with liquidity risk. All of these findings are also proved by the previous studies conducted by Md. Lutfur Rahman and S.M Hasanul Banna (2015), Almumani (2013).

V. CONCLUSION

As liquidity risk is a major issue all the banks are now very much serious about liquidity risk management which involves the following two things: evaluating the necessity of funds to meet up the depositor's obligation and providing the availability of liquid assets to meet up those obligations in time. But before controlling the liquidity risk properly at first it is needed know the determinants of the liquidity risk and that's why this study has been conducted by considering a total of 26 banks from both conventional and Islamic banks of Bangladesh over the period of 14 years.

Most significant determinants of liquidity risk in the case of conventional banks are loan-to-asset ratio, cash ratio, equity ratio, size, ROA, ROE, and CAR. ROA is the most dominant variable among all. In case of Islamic banks, the most significant variables are loan-to-asset ratio, ROA, cash ratio, and CAR. Though in some previous studies there have been found significant differences in factors affecting the liquidity risk between the conventional banks and the Islamic banks but in the case of Bangladesh, maximum conventional banks provide Shariah-based programs or services for their clients. That's why most of the affecting variables are the same for both types of banks though their significance levels are different. Managing liquidity risk is a significant issue for any bank manager. The managers can focus on different issues to mitigate the liquidity risk. Managers can concentrate on proficient asset management so that they can manage between profitability and required liquidity. Moreover, managers can increase their cash holding or they can increase security investments. Furthermore, increasing the equity ratio and the size of the bank also helps to reduce or minimize the liquidity risk.

When conducting the study, it has been seen that some variables have insignificant relation with liquidity risk but this doesn't mean that these variables have no impact. This may be happened due to insufficient data. So in such cases, more variables can be added to the study. Moreover, based on this study many other studies can be conducted (measures for mitigating liquidity risk, impact of LR on other risks of the bank).

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