BANK SPECIFIC DETERMINANTS OF LIQUIDITY IN JOINT VENTURE COMMERCIAL BANKS OF NEPAL FROM 2016/2017 TO 2020/2021

BIJAY SHARMA
Sunway International Business School, Infrastructure University
Kuala Lumpur
bijaysharma234@gmail.com

Abstract

This study examines the determinants of liquidity in joint venture commercial banks of Nepal from 2016/2017 to 2020/2021. It uses the Liquid Assets to Total Assets Ratio, Liquid Assets to Total Deposit Ratio, and Quick Ratio as dependent variables. Independent variables include the Capital Adequacy Ratio, Non-Performing Loan, Return on Assets, and Bank Size. The research sample consists of 3 out of 7 banks, selected via simple random sampling, using secondary data from annual reports. Regression models and descriptive and analytical research designs are employed to test the significance of these determinants. Findings reveal that the Liquid Assets to Total Deposit Ratio is positively correlated with the Capital Adequacy Ratio but negatively correlated with Non-Performing Loan, Return on Assets, and Bank Size. Similarly, the Liquid Assets to Total Assets Ratio and Quick Ratio show positive correlations with the Capital Adequacy Ratio and negative correlations with other variables.

Kata Kunci: *Liquid Assets to Total Deposit Ratio (LATDR), Liquid Assets to Total Assets Ratio (LATAR), Quick Ratio (QR), Non- Performing Loan (NPL), Return on Assets (ROA), Capital Adequacy Ratio (CAR), Bank Size (BS)*

INTRODUCTION

A bank's capacity to get adequate cash to pay for its forthcoming commitments in order to properly finance its transactions is known liquidity. A bank's capacity to satisfy financial commitments when they become due is referred to as liquidity creation. For example, a bank may issue demand deposits that may be withdrawn at any time and may give lending facilities to its borrowers committed for a particular time period. (State et al., 2017) The liquidity is of bank is its capacity to meet its current liabilities with reference to its depositors and creditors. In an economical diaspora of a country, the banking industry's involvement is critical with liquidity being a vital influence. A bank’s performance is greatly dependent to its ability to manage its short-term assets and obligations. A bank should have a strong liquidity management system in place to remain solvent and compete in the market with long

term prospects. A bank should thrive to strike a balance between wealth maximization objective as well as liquidity management objective as both of the objectives are interlinked with each other. Focusing on profit and bonus distribution should go hand in hand along with liquidity management to lower down any future financial risks that might arise while failing to balance out both the objectives.

Commercial banks in Nepal confront severe liquidity management issues, which have resulted in poor financial performance. Poor liquidity management affects capital and earnings. In high-risk circumstances, it can potentially result in liquidation and bank collapse. Concerned banks may only obtain funds from the market at a high interest rate. This eventually leads to a decrease in bank earnings. As a result, liquidity management is regarded as the economy's lifeblood. Both liquidity and profitability decisions, which are important managerial decisions, can have an impact on shareholder return, risk, and customer satisfaction. (JeevarajasingamN, 2014) Each bank strives to recruit more clients in order to increase profits and become a more successful bank. When a company keeps a substantial share of its current assets, its liquidity situation improves, but its overall profitability suffers. (Shafana, 2013). Many banks may struggle to establish the right level of liquidity. A company will face difficulties in meeting liabilities if the company does not have sufficient liquid assets. Cash and marketable securities are the examples of liquid assets. This will directly impact the profitability and operation of the company. In commercial banks, liquidity indicates the ability to meet urgent financial obligations. At the time of contract maturity, the contractor must pay the cash for its obligations, which include borrowing, investments, withdrawals of deposits, and accumulated liabilities. (Khan et al., 2016)

Banks act as a bridge between depositors who have surplus cash and investors who need the funds to participate in various areas. Banks seek to offer funding to both needed and excess parties. The capacity of a bank to pay short-term commitments for everyday operations on demand is referred to as its liquidity. Commercial banks are thought to have a large cash position, which makes them financially sound and low risk. (Allagabo & Mustafa, 2019) Commercial banks are one of the essential movers of economy. Thus, it is absolutely necessary that their liquidity status must be stable. The liquidity situations of commercial banks as they lend to MFIs, the government, and the

general public are critical to the success of any economy. Proper financial decision making is critical to the efficiency and profitability of banking transactions. The majority of a bank's financial choices are focused with liquid assets and liquid liabilities. A bank's working capital management differs from those of other types of businesses. A bank is critical in supplying the working capital needs of various types of commercial enterprises. It must also manage its own working capital effectively. Furthermore, the operation of the capital and money markets is strongly reliant on the liquidity situations of commercial banks. To ensure that commercial banks' activities are not impeded, the liquidity situation of commercial banks must be confirmed. Thus, the purpose of this study is to analyze the bank-centric determinants that influence the liquidity of joint-venture commercial banks in order to provide insights regarding its position and relationship.

This study identifies various bank-centric determinants influencing the liquidity in joint venture commercial banks in Nepal. The optimism for a post-pandemic economic recovery in Nepal has been hampered by a liquidity crisis inside the country's banks and financial institutions. Because the Nepalese Rupee (NPR) is a non-convertible currency with a large trade imbalance, liquidity crises are prevalent. The present liquidity issue has arisen as a result of increased loan disbursements to stimulate economic activity and nurture economic recovery in the country. A rise in credit disbursement has not been matched by a rise in deposits. Banks and financial institutions have exhausted their loanable money, and the government is considering raising internal loans for development purposes. External factors contributing to liquidity crisis in Nepal includes increased credit, low deposits, declining foreign reserves and weak mitigating actions adopted by the government. (Sneha Shrestha, 2022) As the bank and financial institutions is going through the liquidity turmoil, considering the current scenario, this study paper will be beneficial to both banks and financial institutions, as well as the non-banking sector. The bank eventually raises the liquidity risk, resulting in the maintenance of a high level of liquidity. If the bank's liquidity risk rises, it will be unable to meet its financial commitments. The management of liquidity is seen as an on-going and ever-lasting concern. In order to cater to the problem concerning liquidity, it is critical to identify the many elements

impacting liquidity. Liquidity is influenced by a variety of things. Among these aspects, the bank-specific factors play the most important roles. The concerns revolving liquidity is getting more difficult to address since banks and financial institutions in Nepal are now dealing with it. Many worldwide studies have been conducted to investigate the influence of bank-specific variables on liquidity. However, very few studies on the bank-centric variables affecting liquidity in the banking industry in Nepal has been done. So, to a certain extent, this work fills a void that will aid future research in nations such as Nepal. Furthermore, it benefits society's and the economy's financial sectors. As a result, commercial banks including joint venture commercial banks, regulatory authorities, academic personnel, and society are the key benefactors of this research.

The main objective of the study is to assess the impacts of bank-centric factors related to liquidity in Nepal's joint venture sample commercial banks. Following are the specified objectives of this study:

1. To identify the major bank specific variables of liquidity position of the sample joint venture banks.
2. To examine the relationship of Non-Performing Loan, Profitability, Size of the bank and Capital Adequacy Ratio on liquidity position of the sample joint venture banks.
3. To calculate the pre and post pandemic liquidity position of the sample joint venture banks.

THEORETICAL FRAMEWORK & HYPOTHESES DEVELOPMENT

Instituional Setting

Banks are one of major regulators of economy in any country. The COVID-19 pandemic affected the banking industry of Nepal as it did to the entire world economy. The recession caused by COVID-19, is considered by many economists as the most serious financial crisis since the Great Depression of the 1930s. (Reinhart & Reinhart, 2020). The economic impact of pandemic was widely seen in Nepal from 2020/2021. In the context of these worldwide financial crises, difficulties with liquidity risk arose primarily as a result of rising loan-to-deposit ratios and an overwhelming growth in non-performing loans. Similarly, the banking and financial sector may face certain liquidity risks during the COVID-19 recession due to increased credit risk defaults, lower recoveries due to an inactive market for collaterals, lower cash inflows from loan repayments, fair value losses due to increased credit spread, reduced profit level, capital depletion, and decreased capital adequacy ratio.

The Nepalese economy is recovering from the COVID-19 pandemic shock. Despite the COVID-19 epidemic, the banking industry is in good shape. Bank and financial institution capital adequacy remained robust and above current regulatory criteria. Despite the pandemic, the non-performing loan ratio has remained stable, showing the banks and financial institutions good asset quality. However, such a low NPL rate may be due in part to regulatory relaxations and other NRB initiatives used during the epidemic, such as loan restructuring and rescheduling. Reversing regulatory laxity in the post-COVID period may increase the banking system's NPLs. (NRB, 2021a). As a result, it is critical to address the liquidity issue and analyze potential determinants that may impact it.

Anticipated Income Theory

This idea states that a bank's liquidity may be managed by properly phasing and structuring loan obligations made to clients. The theory of anticipated income, as formulated by Herbert V. Prochnow in 1949, encapsulated these notions and associated the inherent soundness of term loans, which were becoming more important, with payback schedule that are acceptable and tailored to the future earning or cash flow of

the borrower. Under this banking policy regime, commercial credit demands were well met. The change in the economic conditions, on the other hand, placed additional demands on the banking system, resulting in a new approach to balance sheet management and new financial issues for businesses. Under this new scenario, bank loan commitment rules would become more crucial in the credit process. This hypothesis has prompted several commercial banks to implement ladder effects in their investment portfolios.

Commercial Loan Theory

A bank should only make short-term business loans to manufacturers to support them through their business cycles, according to the commercial loan. According to this notion, short-term company loans will become due on time, allowing banks to preserve liquidity and repay depositors. This approach ensures that each bank has an adequate level of liquidity, as well as an adequate money supply for the whole economy. The central bank is expected to increase or decrease bank reserves by discounting sanctioned loans again. When company begins to expand and trade requirements grow, banks are able to collect extra reserves by rediscounting bills with central banks. When business slow down and trade requirements are decreased, the volume of bill rediscounting decreases, as does the supply of bank reserves and the quantity of bank credit and money.

Shiftability Theory

H.G. Moulton presented the shiftability theory, according to which, for an asset to be entirely shiftable, it must be immediately transferrable without any capital loss when liquidity is required. This is primarily utilized for short-term market investments such as treasury bills and bills of exchange, which may be sold directly whenever banks need to generate cash. However, in general, when all banks want liquidity, the shiftability hypothesis requires all banks to purchase assets that may be transferred to the central bank, which is the lender of last resort.

Hypothesis Development

(Ojha, 2018) explored the relationship between Non-Performing Loan and Bank Liquidity of Nepalese commercial banks and concluded in his research that Non-Performing Loan and Bank Liquidity has negative relationship. This situation has been hypothesized as under in this study:

H1. There is significant positive relationship between bank liquidity and non-performing loan.

The relationship between bank liquidity and return on assets was analyzed by (Khanal, 2019) The researcher concluded that return on assets is statistically significant with the bank liquidity. This situation has been hypothesized as under in this study:

H2.: There is significant positive relationship between bank liquidity and return on assets.

Capital Adequacy Ratio is the internal bank specific factor determining liquidity and it is positively related to bank liquidity. (Khanal, 2019) This situation has been hypothesized as under in this study:

H3. There is significant positive relationship between bank liquidity and capital adequacy ratio.

According to (Ghimire, 2021) bank size is the sum of total assets of the bank and has negative and significant impact on liquidity of banks in Nepal. This situation has been hypothesized as under in this study:

H4. There is significant positive relationship between bank liquidity and bank size.

RESEARCH METHODOLOGY

This study aims portrays accurately upon the liquidity (or liquid assets and liquid liabilities) and its determinants of three joint venture banks under consideration, namely Standard Chartered Bank Nepal Limited, Himalayan Bank Limited and Nabil Bank Limited. Descriptive and analytical research design is used as the research methodology for this study.

A population is the total group about whom conclusions are drawn. Since this study is concerned with the study of liquidity of joint venture banks, the total number of joint venture commercial banks in Nepal is the population of this study. Currently, there are twenty-seven commercial banks, out of which seven are joint venture commercial banks which are operating in Nepal which is the total population for this study. The total population of joint venture commercial bank is represented in the table below:

Table 1. Total Population of The Study

S.N.	Joint Venture Commercial Bank in Nepal
1	Nepal SBI Bank Limited
2	Everest Bank Limited
3	NABIL Bank Limited
4	Standard Chartered Bank Limited
5	Nepal Bangladesh Bank Limited
6	Himalayan Bank Limited
7	NMB Bank Limited

As per the latest report published by Nepal Rastra Bank, the apex banking regulatory body of Nepal, there are 27 commercial banks in Nepal, out of which 7 are joint venture commercial banks. (NRB, 2021b). The sample size has also been determined based on the research conducted in the similar topic by other researchers. In the study, 'Analysis on Liquidity and Profitability of Commercial Banks' by (Adhikari, 2018), the total population was 28 and 6 banks were chosen as sample. Similarly, in the study 'Impact of Liquidity Management on Profitability: A comparative Study between Nabil and SCBN' by (Sthapit & Maharjan, 2012) the total population was 28 and only 2 banks were chosen as sample. Further, in the study 'Impact of Liquidity on Profitability of Joint Venture Commercial Banks in Nepal' by (Shrestha & Jha, 2020) a total of 3 samples were taken out of the population of 7 joint venture banks. In this study, 3

sample banks were selected based on simple random sampling technique out of the population of 7 joint venture commercial banks.

For the context of this study, the study of all seven banks within was almost impossible. All the joint venture commercial banks in Nepal are the population of this study. Most of the research based on the bank's financial parameters have included three banks as samples, as a result of which three sample banks for the purpose of this study has been used. Among them, Standard Chartered Bank Nepal Limited, Himalayan Bank Limited and Nabil Bank Limited have been selected as samples for the present study using simple random method. For analysis purpose, financial statements from preceding five-year period are used. This study is based on 15 observations. Following are the conditins based on which the sample banks were selected:

- Standard Chartered Bank Limited (SCBL), Himalayan Bank Limited (HBL) and Nabil Bank Limited (NBL) have published their financial reports up to fiscal year 2020/2021 in their official websites.
- Standard Chartered Bank Limited (SCBL), Himalayan Bank Limited (HBL) and Nabil Bank Limited (NBL) are 'A' class join-venture commercial banks in Nepal.

Table 2. Total Observations of The Study

S.N.	Name of the Sample Banks	Study Period	Observations
1	Standard Chartered Bank Limited	2016/17-2020/21	5
2	Himalayan Bank Limited	2016/17-2020/21	5
3	NABIL Bank Limited	2016/17-2020/21	5

Secondary data are used in this study. Those data are collected through various published annual reports of the concerned banks. The data required to analyze the

financial ratios are directly obtained from the concerned banks. Similarly, related books, magazine, journals, articles, reports, bulletins data from Nepal Stock Exchange and Nepal Rastra Bank, Central Bureau of Statistics, related website from internal sources etc. as well as other supplementary data and various economic surveys are also used. The studies that were previously conducted in the similar topic are also referenced as the information source for data collection. Financial statements of the sample banks were studied in order to gather and process the data. Data obtained from the study and analysis were represented through various tables and charts in this study.

The data presented in this study have been tested and made authentic and reliable through the use of financial as well as statistical tools. Different figures from the financial statements are tabulated for data analysis. Financial ratios, percentages, standard deviations, averages, and coefficients of variation are then computed and displayed in tables. In this study, coefficient of correlation is also calculated to study the association between two or more variables. The simple and multiple regression analysis is used for the purpose of hypothesis testing in this study.

Dependent Variables

Liquidity Ratios

Liquidity ratio assesses the capacity of a company to fulfill short-term commitments.(Institute, n.d.) Three liquidity ratios: the liquid asset-to-total-asset ratio (LATAR) and the liquid asset-to-total-deposit ratio (LATDR) are discussed in this study along with quick ratio (QR) in order to determine the liquidity position of the sample joint venture banks.

Independent Variables

Non-Performing Loan

When a loan customer fails to pay the principal and interest under the stipulated time as provided by the bank, such loan is classified under non-performing loan. A nonperforming loan is in which the loan customer defaults on payment. Commercial loans are termed nonperforming in banking if the debtor has made no interest or principal payments in the last 90 days or is 90 days past due. (Bhattarai, 2016).

Profitability

Profitability is the degree to which a business yields profit to the investors. The profitability of bank and financial institutions is generally measured through Return on Assets. ROA checks the profitability of the bank as a result of its diversification of assets. ROA is calculated through the division of net income after tax by total assets of the company. (Sthapit & Maharjan, 2012) Higher ROA indicates that the management is productive and efficient in using its financial resources.

Capital Adequacy Ratio

This ratio prevents financial institutions such as banks from excessive leverage and bankruptcy. If a bank has sufficient CAR, it is understood that has enough capital to take hit of any loss. Thus, the probability of the depositors losing their money and the bank going insolvent becomes highly unlikely. CAR is given by: (Tier 1 Capital + Tier 2 Capital) / Risk-Weighted Assets. (Ahamed, 2015)

Bank Size

Bank Size is the sum of total assets of the bank. (Khanal, 2019) It has strong effect on the liquidity position of the banks.

RESULTS

Descriptive Analysis

Table 3. Descriptive Analysis of Dependent and Independent Variables

Variables	Mean	SD	Minimum	Maximum
LATAR	0.19	0.11	0.08	0.39
LATDR	0.23	0.14	0.10	0.48
QR	0.22	0.13	0.09	0.45
NPL	0.71	0.41	0.15	1.40
CAR	15.31	4.01	12.15	22.99
BS	147,275	55,153	77,409	291,066
ROA	2.02	0.32	1.22	2.69

The above table shows that the average LATAR calculated was 0.19 times, with the average standard deviation of the same being 0.11 with the minimum LATAR

calculated being 0.08 times and maximum being 0.39 times. Likewise, the average LATDR calculated was 0.23 times, with the average standard deviation of the same being 0.14. The minimum LATDR calculated was 0.10 times and the maximum was 0.48 times. Similarly, the average QR calculated was 0.23 times and the calculation of the average standard deviation of the same was 0.13. The minimum QR calculated was 0.09 times and the maximum QR calculated was 0.45. The average NPL calculated was 0.71 times with the average standard deviation of the same being 0.41 times. The minimum NPL calculated was 0.15 times whereas the maximum NPL calculated was 1.40 times. The average bank size is NPR 147,275 million and its average standard deviation is NPR 55,153 million. The minimum bank size is NPR 77,409 million and the maximum bank size is NPR 291,066 million. Finally, the average ROA was calculated as 2.02 times and its average standard deviation was calculated as 0.32 times. The minimum ROA was 1.22 times and the maximum ROA was 2.69 times.

Regression Analysis

Regression analysis was conducted to analyze the significance of relationship between the dependent and independent variables used in this study. The regression models (1), (2) and (3) were derived using multiple regression analysis.

Table 4. LATAR- Regression Model 1

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	0.120	4	0.030	12.139	.001[b]
	Residual	0.025	10	0.002		
	Total	0.145	14			
		Coefficients	**Standard Error**	**t Stat**	**P-Value**	
Intercept		-0.113	0.247	-0.457	0.658	
NPL		-0.986	6.887	-0.143	0.889	
ROA		-2.884	3.791	-0.761	0.464	
CAR		2.445	0.782	3.129	0.011	
BS		0.001	0.000	-0.194	0.850	
R^2				**0.829**		

The above Anova table for LATAR Regression model reflects that the overall regression model was significant, F (4,10) =12.139, p<0.001 and R^2=0.829. On the basis of the above regression table computed at 5% level of significance, following regression equation was developed:

LATAR= -0.113-0.986NPL-2.884ROA+2.445CAR+0.001BS

The r-squared for analyzing the relationship of LATAR with other independent variables in this study has been calculated as 0.829, this indicates that the 82.9% of the variants of the dependent variable is explained by the independent variables. The regression coefficients of CAR and BS is positive, this means if liquidity on assets is increased by 0.829, CAR will increase by 2.445 and BS will increase by 0.001. On the contrary, the regression coefficients of NPL and ROA are negative, meaning, if liquidity on assets is increased by 0.829, NPL will decrease by -0.986 and ROA will decrease by -2.884 respectively. The P-Value of CAR is less than 0.05, i.e., it is 0.011 which makes it statistically significant at 5% significance level. Similarly, the P-Value of NPL, ROA and BS are higher than 0.05, making them insignificant at 5% significance level.

Table 5 LATDR- Regression Model 2

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	0.198	4	0.049	13.491	.000[b]
	Residual	0.037	10	0.004		
	Total	0.234	14			

	Coefficients	Standard Error	t Stat	P-Value
Intercept	-0.206	0.300	-0.686	0.508
NPL	-0.054	8.377	-0.006	0.995
ROA	-3.414	4.611	-0.740	0.476
CAR	3.305	0.951	3.477	0.006
BS	0.001	0.000	0.011	0.991
R^2			**0.844**	

The above Anova table for LATDR Regression model reflects that the overall regression model was significant, F (4,10) =13.491, p<0.001 and R^2=0.844. On the basis of the above regression table computed at 5% level of significance, following regression equation was developed:

LATDR= -0.206-0.054NPL-3.414ROA+3.305CAR+0.001BS

The r-squared for analyzing the relationship of LATDR with other independent variables in this study has been calculated as 0.844, this indicates that the 84.4% of the variants of the dependent variable is explained by the independent variables. The regression coefficients of CAR and BS is positive, this means if liquidity on assets is increased by 0.844, CAR will increase by 3.305 and BS will increase by 0.001. On the contrary, the regression coefficients of NPL and ROA are negative, meaning, if liquidity on assets is increased by 0.829, NPL will decrease by -0.054 and ROA will decrease by -3.414 respectively. The P-Value of CAR is less than 0.05, i.e., it is 0.006 which makes it statistically significant at 5% significance level. Similarly, the P-Value of NPL, ROA and BS are higher than 0.05, making them insignificant at 5% significance level.

Table 6. QR – Regression Model 3

Model		Sum of Squares	df	Mean Square	F	Sig.
3	Regression	0.173	4	0.043	12.943	.001[b]
	Residual	0.033	10	0.003		
	Total	0.206	14			

	Coefficients	Standard Error	t Stat	P-Value
Intercept	-0.186	0.287	-0.648	0.532
NPL	-0.899	7.997	-0.112	0.913
ROA	-2.705	4.402	-0.614	0.553
CAR	3.033	0.907	3.343	0.007
BS	0.001	0.000	0.027	0.979
R^2			**0.838**	

The above Anova table for QR Regression model reflects that the overall regression model was significant, F (4,10) =12.943, p=0.001 and R^2=0.838. On the basis of the above regression table computed at 5% level of significance, following regression equation was developed:

QR= -0.186-0.899NPL-2.705ROA+3.033CAR+0.001BS

The r-squared for analyzing the relationship of QR with other independent variables in this study has been calculated as 0.838, this indicates that the 83.8% of the variants of the dependent variable is explained by the independent variables. The regression coefficients of CAR and BS is positive, this means if liquidity on assets is increased by 0.838, CAR will increase by 3.033 and BS will increase by 0.001. On the contrary, the regression coefficients of NPL and ROA are negative, meaning, if liquidity on assets is increased by 0.838, NPL will decrease by -0.899 and ROA will decrease by -2.705 respectively. The P-Value of CAR is less than 0.05, i.e., it is 0.007 which makes it statistically significant at 5% significance level. Similarly, the P-Value of NPL, ROA and BS are higher than 0.05, making them insignificant at 5% significance level.

Hypothesis Testing

As per the findings obtained from the data analysis, the hypothesis set forward in this study has been tested as under:

H1: There is significant positive relationship between bank liquidity and non-performing loan

Dependent Variable	Independent Variable	Correlation Coefficient	Hypothesis Test
LATAR	NPL	-0.647	Rejected
LATDR	NPL	-0.644	Rejected
QR	NPL	-0.662	Rejected

H2: There is significant positive relationship between bank liquidity and return on assets

Dependent Variable	Independent Variable	Correlation Coefficient	Hypothesis Test
LATAR	ROA	-0.004	Rejected
LATDR	ROA	-0.014	Rejected
QR	ROA	0.013	Accepted

H3: There is significant positive relationship between bank liquidity and capital adequacy ratio

Dependent Variable	Independent Variable	Correlation Coefficient	Hypothesis Test
LATAR	CAR	0.904	Accepted
LATDR	CAR	0.911	Accepted
QR	CAR	0.911	Accepted

H4: There is significant positive relationship between bank liquidity and bank size

Dependent Variable	Independent Variable	Correlation Coefficient	Hypothesis Test
LATAR	BS	-0.536	Rejected
LATDR	BS	-0.522	Rejected
QR	BS	-0.521	Rejected

Pre- and Post-Pandemic Liquidity Analysis

LATAR

Banks	2016/2017	2017/2018	2018/2019	2019/2020	Average (Pre-Pandemic)	Post Pandemic 2020/2021
SCBL	0.28	0.37	0.27	0.39	0.33	0.26
HBL	0.09	0.13	0.08	0.17	0.12	0.12
NBL	0.10	0.16	0.15	0.15	0.14	0.09

LATDR

Banks	2016/2017	2017/2018	2018/2019	2019/2020	Average (Pre-Pandemic)	Post Pandemic 2020/2021
SCBL	0.34	0.47	0.34	0.48	0.41	0.34
HBL	0.10	0.15	0.10	0.21	0.15	0.15
NBL	0.12	0.19	0.18	0.18	0.17	0.12

QUICK RATIO

Banks	2016/2017	2017/2018	2018/2019	2019/2020	Average (Pre-Pandemic)	Post Pandemic 2020/2021
SCBL	0.33	0.45	0.32	0.45	0.39	0.30
HBL	0.10	0.15	0.09	0.19	0.14	0.14
NBL	0.11	0.19	0.18	0.18	0.17	0.11

From the above calculations, it can be observed that the average pre-pandemic liquid asset to total asset ratio of SCBL, HBL and NBL was 0.33 which decreased to 0.26 in 2020/2021, 0.12 which remained constant at 0.12 in 2020/2021 and 0.14 which decreased to 0.09 in 2020/2021 respectively. Further, it can be observed that the average pre-pandemic liquid asset to total deposit ratio of SCBL, HBL and NBL was 0.41 which decreased to 0.34 in 2020/2021, 0.15 which remained constant at 0.15 in 2020/2021 and 0.17 which decreased to 0.12 in 2020/2021 respectively. Similarly, it can be observed that the average pre-pandemic quick ratio of SCBL, HBL and NBL was 0.39 which decreased to 0.30 in 2020/2021, 0.14 which remained constant at 0.14 in 2020/2021 and 0.17 which decreased to 0.11 in 2020/2021 respectively.

CONCLUSIONS

Liquidity is critical to a country's economic well-being. Bank liquidity, on the other hand, represents the speed with which a bank can finance its assets and pay off its financial commitments. If the bank does not have enough liquidity, even a viable bank will fail since it will affect the bank's earnings and capital. During a liquidity crisis, banks may be forced to borrow from the market at very high rates. This eventually leads to a decrease in the bank's earnings. Furthermore, a bank's additional borrowing to accommodate depositor demand may jeopardize the bank's capital. As a result, if these catastrophic repercussions are to be avoided, liquidity risk must be properly handled. (Arif & Nauman Anees, 2012).

This study examines the relationship between bank specific determinants of liquidity and liquidity of sample joint venture commercial banks from 2016/2017 to 2020/2021. The data used in this study are secondary data obtained through the audited financial statements of the sample banks which have been published in their respective websites. This study used Capital Adequacy Ratio, Non-Performing Loan, Return on Assets and Bank Size as the independent variables and Liquid Assets to Total Assets Ratio, Liquid Assets to Total Deposit Ratio and Quick Ratio as the dependent variable.

The findings of this study reflected that Capital Adequacy Ratio and Bank Size have positive relationship with the liquidity of the joint venture banks whereas, Non-Performing Loan and Profitability (ROA) have negative relationship with the liquidity of the joint venture banks.

The findings are consistent with the findings of (Ojha, 2018) where the researcher found out that Capital Adequacy Ratio had positive influence and Non-Performing Loan had negative influence on the liquidity of the banks. Similarly, the findings of (Ahamed, 2015) is in line with the findings of this study which analyzed that there is positive relationship between bank size and liquidity. NPL as per (Ghimire, 2021) has also negative impact with liquidity which is in line with the findings of this study. However, the findings of (Khanal, 2019) stated that Capital Adequacy Ratio and Size of the bank had negative influence on liquidity of banks and ROA has positive influence on liquidity which contradicts

with the findings of this study.

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