

IMPACT OF LIQUIDITY MANAGEMENT ON PROFITABILITY OF JOINT VENTURE BANKS IN NEPAL

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Abstract

Liquidity management is one of the essential determinants of firms' market value because it directly affects the profitability. This study investigates the impact of Liquidity management on profitability of joint venture commercial banks in Nepal. The objective of the study is to identify the relationship between the Liquidity management and profitability and its impact on profitability. The relation between the Liquidity management and profitability is examined using Descriptive statistic, Pearson correlation analyses and the effects on profitability is found out using the regression analyses by using a sample of 3 annual financial statements of joint venture commercial Banks in Nepal. The Liquidity management represents the variables of the Current Reserve Ratio (CRR), Credit Deposit Ratio (CDR), Capital Adequacy Ratio (CAR) and the profitability including return on equity (ROA)). The result revealed that the CDR is positively correlated with ROA while, CRR and CAR are inversely correlated with ROA. Thus, it could be concluded that CDR and CAR has significant impact on profitability and CRR has insignificant effect on Profitability of joint venture commercial banks in Nepal.

Key words:

Liquidity; Profitability; Current Reserve Ratio; Credit Deposit Ratio; Capital Adequacy Ratio

INTRODUCTION

Liquidity management is the capacity of banks to meet its short-term financial

obligations. Liquidity mismanagement is mainly caused by a mismatch between assets and liabilities of commercial banks. This arises from maturity mismatch refinancing risk. The indicators of poor liquidity management area fall in asset prices, inadequate debt, and low marketability of assets (Saunders and Cornett, 2005).

Many commercial banks as a result face the challenge of reduced profitability. It is against this background that liquidity management is regarded as the life blood of the economy and in its absence financial markets cease to function efficiently profitability (Molefe and Muzindutsi, 2016).

Liquidity has much money in cash. In other words, we can explain that the easily convertible of assets into cash is called liquidity. On the other hand, it explained that profitability is the determinant of money by which a company's incomes increases than its real expense. Difference between liquidity and profitability is that it is a straight-line method of two concerns. If you move from one to other then you automatically move from one to other (Kumar, 2012).

Liquidity management plays a significant role in maintaining the stability and efficiency of commercial banks and of the banking system as a whole. Bank liquidity is classically defined as, ability of fulfilling obligations for depositors and lenders timely and without loss (Lavrushin 2000, p. 140). However,

the modern point of view determines liquidity as, dynamical state reflecting ability of timely fulfilling obligations for depositors and lenders due to its assets and liabilities management (Matz 2002, p. 8).

Statement of the Problem

Joint Venture Commercial banks have experienced huge financial losses due to poor liquidity management. Thus, poor liquidity management in the banks poses major liquidity management which adversely affects their capital structure and earnings. If not properly managed, liquidity management may lead to severe consequences in the institution. Banks wholly depend on deposits made by their clients and most of their operations are carried out through the deposits. In a situation where all the depositors withdraw their cash from the accounts, the bank is likely to face a liquidity management trap. This may lead to borrowing funds from the central bank or other banks at a very high cost due to high interest charges. Due to this problem commercial banks have tried to ensure that they hold adequate funds at all times so that they are able to meet the demand of their depositor's. Generally, the main cause of liquidity management in these institutions is a mismatch between the assets and the liabilities. This is measured using the maturity mismatch gap. The larger the funding gaps the higher the probability of a liquidity management crisis. Therefore, this study has set

following question:

- What is the impact of cash reserve ratio (CRR) on Return on Assets (ROA)?
- What does effect of credit deposit ratio (CDR) on Return on Assets (ROA)?
- How does the capital adequacy ratio (CAR) effect on Return on Assets (ROA)?

Objective of the Study

The main objective of the present study is to examine the impact of liquidity on profitability. The specific objectives to achieve the main objectives are:

- To examine the impact of cash reserve ratio (CRR) on Return on Assets (ROA)
- To analyze the effect of credit deposit ratio (CDR) on Return on Assets (ROA)
- To identify the capital adequacy ratio (CAR) effect on the Return on Assets (ROA)

Formulation of Hypothesis

Profitability has been selected as a dependent variable through return on assets (ROA) and liquidity is determined as independent variable through cash reserve ratio (CRR), credit deposit ratio (CDR) and capital adequacy ratio (CAR).

Hypothesis:

H1: There is significant relationship between CRR and ROA.

H1: There is significant relationship between CDR and ROA.

H1: There is significant relationship between CAR and ROA.

Review of Literature

Liquidity is a financial term that means the amount of capital that is available for investment or day to day management of an enterprise. Bank Liquidity simply means the ability of the bank to maintain sufficient funds to meet its maturing obligations at a reasonable price at all time. It is the bank's ability to immediately meet cash, cheques, other withdrawals obligations and legitimate new loan demand while abiding by existing reserve requirements. The survival of DMBs depends greatly on how liquid they are, since illiquidity, being a sign of imminent distress, can easily erode the confidence of the public in the banking system and results to run on deposit (Agbada and Osuji, 2013; Olagunju, et al 2011).

Liquidity management therefore involves the strategic supply or withdrawal from the market or circulation the amount of liquidity consistent with a desired level of short-term reserve money without distorting the profit making ability and operations of the bank. It relies on the daily assessment of the liquidity

conditions in the banking system, so as to determine its liquidity needs and thus the volume of liquidity to allot or withdraw from the market. The liquidity needs of the banking system are usually defined by the sum of reserve requirements imposed on banks by a monetary authority (CBN 2012).

Liquidity management helps a bank to maintain stability in operations and earnings by serving as a guide to investment portfolio packaging and management. Effective liquidity management serves as a veritable tool through which DMBs maintain the statutory requirements of the central bank as it affects the proportion of deposits to liquid assets and deposits to loans and advances. Liquidity management reduces the incidence of bankruptcy and liquidation/ failure which can be the later effect of illiquidity or insolvency, and help them to achieve some margin of safety for their customers' deposits. In other words, adequate liquidity helps to generate and sustain public confidence of the depositors and the financial markets. If the financial market perceives a bank to have liquidity problems, the bank may find it difficult to raise further funds except at a premium (Olagunju, et al 2011).

Liquidity management assists DMBs in trading off between risk and return; and liquidity and profitability. Liquidity management also serves as a tool through which commercial banks avoid over-liquidity and under-liquidity

and their consequences. It enables the DMBs to avoid forced sales unfavorable and unprofitable venture or selling its assets to generate cash and to avoid non volitional or involuntary borrowing at CBN discount house, a situation that puts a bank literally at the mercy of the Central Bank (Olagunju, et al.2011).

Globally, the adequacy of liquidity plays very crucial roles in the successful functioning of all business firms. However, the issue of liquidity though important to other businesses, is most paramount to banking institutions and that explains why banks showcase cash and other liquid securities in their balance sheet statement annually. Unlike other conventional firms, bank assets are arranged in terms of the most liquid asset beginning with cash. With respect to finance and financial institutions, liquidity may be defined as the bank's ability to meet maturing obligations without incurring unacceptable losses. A study of liquidity is of major importance to both the internal and external environments of a financial institution and analysts because of its close relationship with day to day operations of a business (Bhunja, 2010). Liquidity shortage, no matter how small, can cause great damage to a financial institution's operations and customer relationship in particular. Every business relies on its clients to succeed and so it is a strategic business plan to build good client relationships. Liquidity crisis, if not properly managed can destroy those relationships instantly. In order to avoid liquidity crisis, management of businesses and financial institutions in

particular needs to have a well-defined policy and established procedures for measuring, monitoring, and managing liquidity. Managing liquidity is therefore a core daily process requiring managers to monitor and project cash flows to ensure that adequate liquidity is maintained at all times.

Research Methods

Research Design

This study is aimed to establish the impact of liquidity on the profitability of the Nepalese Joint venture commercial banks. Data is taken from financial annual reports of banks for the period of 10 years 2010-2019. It is Descriptive in nature and makes use of quantitative analysis. Our main focus is Profitability and Liquidity.

Population and Sample Size

The population of this study is confined to banking sector, it consists of only three among 27 commercial banks of Nepal which is taken with randomly selection process and examined for the analysis proposes. This study covers the ten years' data from 2009/10 to 2018/19 as a sample for this study.

Data Collection Tool

This study has used secondary data for the analysis and all the data were collected from the financial statements, annual reports. The nature of the data is quantitative. The collected data was analyzed by using Statistical Package for Service Solution (SPSS) version 21.0 and has been tested through descriptive statistics, correlation and regression. Profitability has been selected as a dependent variable through return on assets and liquidity is determined as independent variable.

Data Analysis Tool: This section presents the description of the data that was used in this study.

Descriptive Analysis

The descriptive statistics of the dependent and independent variables in this study are presented in Table 1. It is based on a panel data set organized from three commercial banks operating in the Nepalese financial market during the period from 2010 to 2019. Looking at them, generally, the statistics indicate a wide variability exist in the indicators of liquidity management and profitability of commercial banks.

Descriptive Statistics

Description	N	Mean	Std. Deviation
Return on Assets	30	1.7730	0.67749
Cash Reserve Ratio	30	9.3627	4.22090
Credit Deposit Ratio	30	74.8703	12.26210
Capital Adequacy Ratio	30	11.3313	2.18229
Valid N (list wise)	30		

Descriptive Analysis and Result

The ROA has a mean value of 1.7730% with standard deviation of 0.67749%. Cash Reserve Ratio (CRR) has a mean of 9.3627%. It has standard deviation of 4.22090%. Credit Deposit Ratio (CDR) variable has the mean value of 74.8703%. Standard deviation of CDR is 12.26210% and Credit Adequacy Ratio (CAR) variable has the mean value of 11.3313%. Standard deviation of CAR is 2.18229%. It showed that there was low variability than all other variable used in the study too.

Table: 2 Correlations

Description	Return on Assets	Cash Reserve Ratio	Credit Deposit Ratio	Capital Adequacy Ratio
ROA	1			
CRR	-.284	1		
CDR	.242	-.121	1	
CAR	-.262	-.141	.486**	1

** . Correlation is significant at the 0.01 level (2-tailed).

In above table all the obtained ranges are between -1 & +1. Positive means that increase in independent variable will increase dependent variable. Similarly, negative means that increase in independent variable will decrease the dependent. The CDR is positively correlated with ROA while, CRR and CAR are inversely correlated with ROA.

Regression Analysis of ROA on Liquidity Management

Predictors: (Constant), Capital Adequacy Ratio, Cash Reserve Ratio, Credit Deposit Ratio

Table: 3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.880a	0.637	0.260	0.58266

Result of regression is that the three independent variables can explain approximately 63.7.0% of the proportion of variance of dependent variable. However, it is still left 36.3.0 % unexplained by these independent variables in this study.

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig
1	Regression	4.484	3	1.495	4.403	.012b
	Residual	8.827	26	.339		
	Total	13.311	29			

a. Dependent Variable: Return on Assets

b. Predictors: (Constant), Capital Adequacy Ratio, Cash Reserve Ratio, Credit Deposit Ratio

The results show that the model explained only 4.484 out of the total 13.311 variation in the dependent variable. The F-statistic is significant at 95% confidence interval with F value is 4.403.

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.180	.804		2.712	.012
Cash Reserve Ratio	-.049	.026	-.303	-1.875	.072
Credit Deposit Ratio	.026	.010	.462	2.525	.018
Capital Adequacy Ratio	-.165	.057	-.530	-2.887	.008
a. Dependent Variable: Return on Assets					

P value is recorded to be less than 0.05 which means that there is significant impact of credit deposit ratio (CDR) ($t= 2.525$ $p = .018$) on return on asset (ROA) and Capital Adequacy Ratio (CAR) is ($t= -2.887$ $p = .008$) on return on asset (ROA). The p value is recorded to be higher than 0.05 which means that there is no significant influence of Credit Deposit Ratio (CRR) is ($t= -1.599$ $p = .122$), on return on assets (ROA). Thus, it can be concluded that CDR and CAR has significant impact on profitability and CRR has no significant effect on Profitability of joint venture commercial banks in Nepal.

Conclusion

In this study, we can rightly conclude that both illiquidity and excess liquidity are "financial diseases" that can easily erode the profit base of a bank as they affect bank's attempt to attain high profitability-level. The pursuit of high

profit without consideration to the liquidity level can cause great illiquidity, which reduces the customers' patronage and loyalty. Therefore, any bank that has the aim of maximizing its profit level must adopt effective liquidity management. Effective liquidity management also requires adequate liquidity level which will help commercial banks to estimate the proportion of depositor's funds that will be demanded at any period and arrange on how to meet the demand. The result revealed that the CDR is positively correlated with ROA while, CRR and CAR are inversely correlated with ROA. Thus, it can be concluded that CDR and CAR has significant impact on profitability and CRR has no significant effect on Profitability of joint venture commercial banks in Nepal. Result of regression is that the three independent variables can explain approximately 63.7.0% of the proportion of variance of dependent variable. However, it is still left 36.3.0 % unexplained by these independent variables in this study.

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