

Impact of Liquidity on Profitability of Joint Venture Commercial Banks in Nepal (With Reference to EBL, HBL and NBB)

Shreeti Shrestha¹ & Uday Kant Jha²

¹PG Scholar, Lord Buddha Education Foundation, Kathmandu, Nepal

²Chief Programme Coordinator, Lord Buddha Education Foundation, Kathmandu, Nepal

Abstract

This study explores the Impact of Liquidity on Profitability in Foreign Joint Venture Commercial Bank in Nepal: with reference to HBL, EBL & NBB. 3 foreign joint venture commercial banks in Nepal; HBL, EBL and NBB are selected among 27 commercial banks of Nepal as a sample and analyzed for the current study over the period 2014/15 to 2018/19 AD. Analysis was based on data extracted from annual reports and accounts of the banks for the relevant period. Correlation and regression analysis respectively were employed to examine the nature and extent of the relationship between the variables and determine whether any cause and effect relationship between them. Since liquidity management can increase the bank's profitability. the study has examined their liquidity management as well as profitability positions using various statistical and financial tools. The article indicates largely zigzag trend of average profitability of commercial banks, although the trend of liquidity ratios of the bank is unstable. The research concluded that bank's liquidity ratios have below the prescribed standard. The study concluded that the LADR has significant impact in ROA as well as ROE of HBL, EBL and NBB. NRBTD/CRR has weak significant impact on ROA of all sample banks whereas, it has negative impact ROE of NBB and have the positive impact on other two. CACL has significant effect on ROA of HBL and EBL whereas there is no significant impact on ROA due to CACL in NBB. Further, CACL has significant impact on ROE on all three banks. CHTDR has significant effect on ROA and ROE of HBL and EBL whereas NBB has weak significant impact on both the profitability index. CATA has significant effect on ROA in HBL, EBL and NBB. Similarly, CATA has significant effect on ROE whereas there is weak positive impact for EBL and NBB. The LADR has significant impact in ROA as well as ROE of HBL, EBL and NBB. However, the findings of this paper are based on a study conducted on the selected banks. Hence, the results are not generalizable to non-quoted banks. Secondly, the sample only comprises foreign joint venture commercial banks in Nepal. Therefore, the results are valid for this sector.

Keywords: Liquidity, Profitability, ROA, ROE, CATA, LADR, CHTDR, NRBTD and CACL.

1 INTRODUCTION

Liquidity means an immediate capacity to meet one's financial commitment. Liquidity management can be defined in two major forms. The first one refers to the ability to trade different types of assets at its current price. Another is applied by financial institutions such as the capacity to meet cash and collateral obligation deprived of incurring a substantial loss (Shrestha, 2012).

A capable manager make effort to reduce the liquidity risk which leads to liquidity management of the organization. Banks use financial statements to evaluate liquidity risk using liquidity measurement ratios. These are usually done by comparing liquid assets (currents assets) and short-term liabilities (Khan.I.U, 2011).

The liquidity indication of organization depends upon the relation between cash assets with addition of various assets which can quickly turned into cash and payment to the awaited short-term liabilities (Business Management Ideas, n.d.). Investment and liquidity are two counterparts of the company. For more earning, more investments are made which may result in less degree of liquidity which may lead to different types of loss penalty. In the case of banks, cash is available from deposit received straight from public, institutions, companies in the form of demand deposits and term deposits (Ahmed Arif, 2012).

Liquidity ratio is the comparison of cash assets and quick assets which nearly turned into cash and current short-term liabilities or immediate payment obligations (ICRA Nepal Ltd, 2019). In the

companies, if cash assets and quick assets are insufficient in comparison to current payment obligations, the business may face obstacles in meeting immediate financial obligations, which directly affect the daily operation of the business and profitability of the organization.

Liquidity management is crucial in financial management decisions. Optimization of liquidity can be achieved through trade-off management between profitability and liquidity (Khan.I.U, 2011).

Borderau & Graham (2010) with the study on 'Analysis of impact of liquidity on bank profitability' from a sample of large U.S. & Canada banks (1997-2009) has resulted that profitability has a positive significant relationship with the liquid asset that indicate that the bank holding more liquid asset had improved in profitability.

Liquidity in commercial banks represents the capacity to fulfill the immediate financial obligation. The contractor needs to pay the funds for its obligation at the time of maturity of contracts, including the borrowing, investments, withdrawals of the deposits and accrued liabilities (Mutahhar, 2016).

In general, we can define liquidity as the ability to invest and finance in increasing assets and meet short term liabilities without any unexpected losses (Olagunju, 2011). For efficient organizations managing liquidity will help in the smooth operation of the organization, meet the requirement of cash or quick assets to pay the incurred short-term liabilities.

Liquidity is all about cash flow the concept of liquidity is determined by the relationship between current assets & current liabilities. The health of the organization is determined by the liquidity position, the unhealthy positions of the firm and the threat of solvency are also created if liquidity management is not adequate and proper (D.Cucinelli, 2013).

The profitability of the organization determines and measures the efficiency of the firm. In another word, it is a measure of earning power of the organization and to operate the organization. The efficiency of an organization which is managed by its financial performance. In short, profitability is determined by the ability to make profit from the operations (Owolabi, 2012).

Liquidity management is a crucial part of the financial institution and all kinds of business organizations. Management must take a good decision in managing the liquidity position of the organization. The organization can be benefitted from the balancing between liquidity and profitability.

Banks are the middle man in between the depositors who bears surplus fund & the investors who requires the funds for investment in various sectors. Banks aim to provide financing services to both the needed and surplus parties. The liquidity of bank refers to the ability to pay short-term commitments for daily operations on demand. Commercial Banks are considered to have huge cash balance which made them financially solid & bears low risk (Mustafa, 2019). The term profitability is the instrument to determine the success of bank in terms of its economy. It has been observed some banks doesn't contain sufficient liquidity levels to operate the daily transactions and due obligations even though huge profitability seems to be booked on books of account (Kassim, 2009). If the banks keep excess cash reserve than requirement it affects directly to the profitability by missing the opportunities for further investment and lending losing the possible revenue to be generated. Hence the balance between liquidity and profitability should be held for sustainability of Bank (Mustafa, 2019).

1.1 Background of Study

The basic objectives of this study are to identify the Impact of Liquidity on Profitability of Commercial Banks in Nepal. Among the 28 commercial banks, only 3 foreign joint venture commercials are focused on the study. So, the study analyses the financial statement of the following sample banks. The selected banks for the study are as follows.

- Everest Bank Ltd (EBL)
- Himalayan Bank Limited (HBL)
- Nepal Bangladesh Bank Limited (NB Bank)

Everest Bank Ltd (EBL)

EBL was Founded in 1994, and is one of the leading banks in Nepal. It is capable of catering to its

diverse services in various segments. It has been serving more than 7.5 lakhs customers, with professionalized & efficient banking services. The Bank has been helping in national development by incorporating agricultural & industrial sector. EBL is one of the joint venture bank which holds 20% of equity by Punjab National Bank (PNB). The bank has been awarded with various nationals for its service & overall performance. ABBS was first introduced by EBL in Nepal. It has got a wide spread network with more than 95 branches, 123 ATM, 3 extension counter and 31 revenue collection counters all over the country with customer-friendly services making it efficient and accessible for its customers, anytime, anywhere (Everest Bank Ltd, 2020).

Himalayan Bank Limited (HBL)

Himalayan Bank is another joint venture bank with Habib Bank Ltd of Pakistan established in 1993. HBL is one of the leading banks of Nepal which is able to provide the primary loan and deposit service throughout Nepal in innovative approaches. The diverse product of it help to provide quality services to its dignified customers. The services of ATMs and Tele-banking were first introduced by HBL. Therefore, innovative and modernized banking services are provided by HBL in Nepal. HBL has been rated by Bankers' Almanac as number 1 bank in the country as well. HBL has been providing its services integrated with Globus (Temenos) as the technology partner with its 65 branches and 72 ATM booths in Nepal (Himalayan Bank Ltd, 2020).

Nepal Bangladesh Bank Ltd. (NBB)

Nepal Bangladesh Bank Ltd. has been registered on 1994 Jan 14 as a leading 'A' class commercial bank and had started its banking operation since 6th June, 1994. It was established as a joint venture bank with IFIC Bank Ltd., Bangladesh. NBB has completed its glorious 25 years' service in Nepal. The bank is providing the financial service with the vision "Bank for Everyone" and is dedicated on the progress and growth of banking literacy among the community, customers and its stakeholders. It has been providing its services with the following mission to fulfill financial expectation in all level of society with quality services and products using the latest technology to satisfy its customer as well as aid in socio-economic development maintaining high standard corporate governance. The bank is providing the financial services via its 95 branches, 7 extension counters and 63 ATM counters all over Nepal. The bank has been providing various services through its digitalization system like visa debit cards, travel card, DC cards and credit cards, mobile banking's and internet banking services (Nepal Bangladesh Bank Ltd, 2020).

1.2 Problem Statement

Banks should be efficient in taking deposits and lending. Due to lack of adequate liquidity bank can encounter with serious financial trouble. Thus, managing liquidity position of bank will help in making good amount of profitability.

The mobilization of the capital by the commercial banks of Nepal in the productive sectors are found minimal. Bank are not able to collect the fund and allocate them in effective and efficient sector. The inefficiency and weakness in the analysis of financial statement affect the bank's financial performance. It reflects the inefficiency in liquidity management.

The banking sectors are facing many problems in maintaining the liquidity position, as in banking sectors lack of adequate liquid assets may impact a negative effect on financial performance due to incapacity in delivering to pay short term debts and other financial expenses.

1.3 Objectives

The core objective to assess the impact of liquidity on the profitability of EBL, HBL and NBB. Besides that, the specific objectives of the study are as follows:

- To evaluate the profitability position of HBL, NBB & EBL.
- To examine the liquidity position of HBL, NBB & EBL.
- To evaluate the association of liquidity and profitability of HBL, NBB & EBL.
- To analyze the influence of liquidity on the profit position of HBL, NBB & EBL.

1.4 Research Hypothesis

The study includes the following set of hypotheses for the analysis.

Hypothesis 1

H0- There is no significant association of LADR on ROA on Banks.

H1- There is significant association of LADR on ROA on Banks

Hypothesis 2

H0- There is no significant impact of LADR on ROE on Banks.

H1- There is significant impact of LADR on ROE on Banks

Hypothesis 3

H0- There is no significant influence of CRR on ROA on Banks.

H1- There is significant influence of CRR on ROA on Banks

Hypothesis 4

H0- There is no significant influence of CRR on ROE on Banks.

H1- There is significant influence of CRR on ROE on Banks

Hypothesis 5

H0- There is no significant effect of LACL on ROA on Banks.

H1- There is significant effect of LACL on ROA on Banks

Hypothesis 6

H0- There is no significant association of LACL on ROE on Banks.

H1- There is significant association of LACL on ROE on Banks

Hypothesis 7

H0- There is no significant link of the CHTDR on ROA on Banks.

H1- There is significant link of CHTDR on ROA on Banks

Hypothesis 8

H0- There is no significant relation of the CHTDR on ROE on Banks.

H1- There is significant relation of CHTDR on ROE on Banks

Hypothesis 9

H0- There is no significant influence of the CATA on ROA on Banks.

H1- There is significant influence of CATA on ROA on Banks

Hypothesis 10

H0- There is no significant impact of the CATA on ROE on Banks.

H1- There is significant impact of CATA on ROE on Banks

1.5 Scope & Significance of the Study

The corporate world is associated with the investment and its return. This world has also been linked with the liquidity and profitability position of firms. Well management of liquid assets and liabilities of firm should be kept in top priority for the sustainability of firm. Profitability of firm are the revenues earn against its operation after deducting its incurred expenses. Banking sector is one of the key players of this corporate world which is contributing in employment creation to improving the country in financial sector. In this sense it essential to be knowledgeable about the impact of liquidity on profitability.

Liquidity and profitability position determine the effectiveness of firms. Investors are more attracted to that organization in which liquidity position is accurate. So, from the investor perspective study of liquidity impact on profitability is important.

1.6 Limitations

This study is simply a partial study for the fulfillment of an MBA degree. The limitations of this study are as follows:

- The study is mainly based on secondary data.
- The study has covered only five fiscal years i.e. from 2014/15 to 2018/19.
- The study has deal with only few factors related to liquidity and profitability as there are numerous factors and issues for analysis.
- The study has covered only 3 foreign joint venture commercial banks for the purpose of analysis out of 28 commercial banks in Nepal.
- The analysis is made with simple correlation and regression analysis and hypothesis testing

has been performed on this analysis basis as well.

2 LITERATURE REVIEW

2.1 Theoretical Literature Review

The survival of the business organization is mainly dependent to the liquid assets, cash and the profit. The value of the shareholder's increase with the increase in the profitability in some extent. The management of liquidity helps in generating the profitability of the business organization as well as in the economic development of the nation. The adequate liquid asset will contribute in the smooth operation of the business organization and will aid in gaining profit. It has been indicated that liquidity and profitability are inter dispensable part of the organization and managing liquidity will help in effective operation of the business and earn profit for re-investment and improves the standard of business (Samuel, 2015).

2.1.1. Liquidity and Profitability in Commercial Banks

The corporate health and efficiency of commercial bank can be determined by proactive parameters such as profitability and liquidity position. The bank plays an intermediary role which collects money from the depositors which are the surplus group and provide the deficit group with the fund from that collected deposits (Macharia, 2013). Thus, banks are also known as financial intermediary unit. This process of bank brings the people together who have excess fund and who need money. Liquidity management is the crucial aspect in implementation of monetary policy (Botoe, 2012). This will aid to economic management and promotes the sustainable economic growth in long run. Banks keeping good mobilization of the monetary and liquid assets and sustainable credit expansion leads to step towards economy's noninflationary potential and liquidity management on time (Khokhar, 2015). The well manage form of liquidity and effective mobilization of the resources will always help in maintaining the health of the bank and gain required profitability.

Liquidity and profitability are foundations of the organization which are always topic of concern to evaluating the financial position (Olagunju, 2011). The survival of any bank is determined by these issues. The short-term survival is depending upon the liquidity of the bank whereas, growth in profitability will make the survival of banks in long run. As the elementary function of the banks is to collect deposits and lend the credit facility (Mahmud, 2014). The banks should maintain the sufficient liquidity to cope the unseen risk. There is a huge risk for the financial institution if neglect in management of liquidity (Naqvi, 2009). However, increasing the liquidity adversely affect the profit of the banks. Hence, management and the balance in profitability and liquidity must be the topic of concern for mitigating the risk.

Liquidity position of bank denotes its ability to fulfill the immediate financial obligations. The bank's obligations comprise loaning, investment, maturity of liabilities and withdrawal of deposits happening in the ordinary course of the Bank actions (Victor Curtis Lartey, 2013). Liquidity can be stated as the degree of quickly convertibility asset to cash or near cash assets which can be easily sold at market and liquidated into cash (Ibe, 2013). The two major purposes of working capital management (WCM) are to know about liquidity and profitability of the organization. It demonstrates on timely balancing of assets and liabilities movements (Valming, 2009).

Banks are concerned about the working capital management and profitability position, as liquidity management plays significant role for their management (Deloof, 2003). Inefficiency in maintaining liquidity position denotes the unnecessary use of liquid assets and storing excess of liquid assets which can reduce the ability to invest in productive resources and bearing loss (Eric Kofi Boadi, 2013). Thus, the efficient management of liquidity, working capital and profitability are the essential.

2.1.2. Liquidity Management Theory in Banks

The key goal of a commercial bank is to manage liquidity maintaining the sound health of financial. There are various measurement criteria of banks to control the hazard cause by unmanaged liquidity position (Shipho, 2011). However, there are numerous way banks in managing their liquidity risk. The efficient liquidity management theories had been encompassed for organizations to make the performance even (Khokhar, 2015). Liquidity management theories helps to prevent the issues

regarding liquidity shortage and also monitor the liquid assets with safety measures. These contending theories include: Commercial Loan Theory, Shiftability Theory and Anticipated Income and Theory of Liquidity.

3 RESEARCH DESIGN AND METHODOLOGY

In the modern world, research has become an indispensable in all spheres of human activity. Research is fundamentally systematic analysis pursuing facts through objectives certifiable methods in order to ascertain the relationship among them and to deduce extensive principles or laws from them. It is actually a technique of analytically thinking by describing and redesigning problems, articulating hypothesis or recommended solution, gathering, consolidating and estimating data, creating presumptions and conclude with acceptance or rejection of hypothesis. Research methodology denotes to the various chronological steps (along with the validation in each step) to be undertaken by a researcher in reviewing a problem with certain objective in view. In other word Research methodology is the systematic way in finding resolution to a problem through systematic and scientific collection of data, use of proper tools for analysis and interpretation and reporting them thoroughly. The methods and chronological application of process has been described in this chapter. The various steps adopted by a researcher to solve with implication of suitable logic to the research problem, it would be flawless methodology only when the sequential order for evaluating and handling the particular problems are performed.

3.1 Research Framework

3.1.1 Independent variable

The variable that doesn't changed by the effect of other variables are called independent variable. Loan & Advance to Deposit Ratio (LADR), Credit Reserve Ratio (CRR) or NRB Balance to Total Deposit ratio (NRBTDR), Liquid Asset to Current Liabilities ratio (LACL) or current ratio, Cash in Hand to Total Deposit Ratio (CHTDR) and Current Asset to total Asset Ratio (CATA) are said to be independent variables in this study.

3.1.2 Dependent Variable

The dependent variables are those variables which represent the output or outcome whose variation is to be studied. The outcome of dependent variable is changed due to change in independent variable. Here dependent variables are ROA & ROEs.

3.2 Theoretical Framework

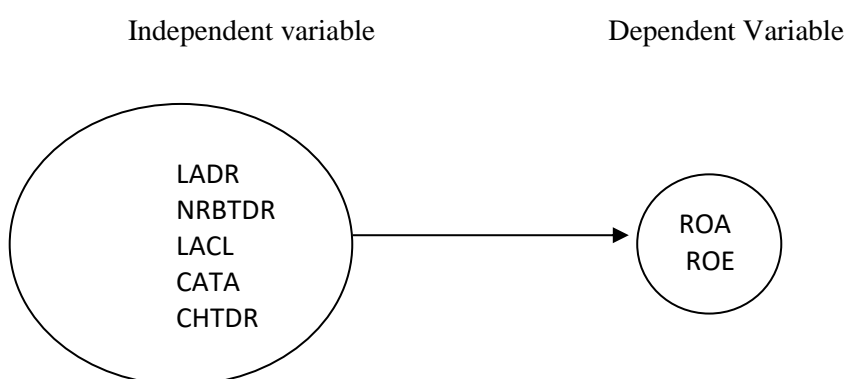


Fig.1. Theoretical framework

3.3 Research Design

Research design is the arrangement of method and techniques for obtaining the information needed and defining the research problem. It defines the requirement of information is to be collected, its sources and the procedures. A good research design ensures the reliability of study with important variables and suited procedure. It compacts with the procedure and source of collection of relevant

data.

The key objective of this study is to analyze the impact of liquidity on profitability of selected commercial banks in Nepal. To accomplish these objectives, research design adopted are analytical and descriptive in nature and tries to describe and analyze the collected information as demanded by the study. Mostly secondary data's have been used basically collected from websites of respective banks their annual reports and other major publication and report from NRB etc. The collected information's have been managed in tabulation and analyzed by using various financial and statistical tools to measure the ratios of liquidity and profitability and mean, standard deviation, correlation coefficient and other useful analysis tool relevant for the study.

3.4 Data Sources

The study seeks to describe the relationship between liquidity and profitability of the commercial banks which has been operated in Nepal as the foreign Joint-Venture Banks listed on Nepal Stock Exchange (NEPSE). Data for this research was collected from annual published reports of three banks i.e. Himalayan Bank Ltd, Everest Bank Ltd and Nepal Banglades Bank Ltd. The data was taken over a period of five years (2014/15 to 2018/19). The data was collected from secondary sources such as published financial reports, different previous studies and related bulletins, reports and periodically published from various government bodies. The source of data is completely secondary hence, intervention in the research was negligible from the side of researcher. Regression and correlation analysis were used to statistically analyze the data. The independent variable for this research was liquidity and the dependent variable was profitability.

3.5 Data Collection Method

Once the purpose of statistical investigation has been defined, the next step is the collection of the data that are relevant for analysis in a meaningful manner. Thus, collection of data is considered as an integral part of the research activity. In this regard, the annual report i.e. financial statement of the concerned fiscal years has been collected from the respective banks. Moreover, several books, journals, articles and magazines and various authentic websites of those sampled banks and NRB have also been referred for the information. Data mining is the other important task which are collected from the original sources. Those, direct use of original form of data will not help in reliable analysis. So, they have been rechecked, re-evaluated, edited and tabulated to bring them into appropriate form for the analysis purpose. The researcher made the collected data trust worthier getting them from authorized sources.

3.6 Data Analysis

Data analysis is one of the most decisive part of research work. The data is analysed using financial and statistical tools to achieve the objective. These two tools are treated as the most reliable till present context. The tools can make the analysis efficient, effective, convenient, reliable. For the analysis of the data the financial and statistical tools relevant to the topic are used. They are as follows.

3.6.1 Quantitative Data Analysis

3.6.1.1 Statistics Tools

Descriptive statistics represents a brief summary of the data being analyzed. They describe the basic features of the data in the study. These tools provide simple abstracts about the sample and measures. Amongst the various descriptive statistics, the following statistics have been used in this study.

3.6.1.2 Mean

The mean is the average value obtained by adding together all times and the summation of times is divided by the number of sample periods. Mean value is calculated by dividing the sum of total observation by its number. The formula to calculate mean value is as below.

$$\bar{X} = \frac{\sum X}{N} \quad (1)$$

Where,

$$\begin{aligned} \bar{X} &= \text{Mean value of Arithmetic Mean} \\ N &= \text{Number of Observations} \\ \Sigma X &= \text{Sum of observations.} \end{aligned}$$

3.6.1.3 Standard Deviation

The standard deviation measures the volatility of data. It is the absolute measure of dispersion between the requisites. It indicates the range of deviation from one value to another from the overall collected data. The higher range of standard deviation represent that the dispersion with higher volatility. This means higher deviation means higher the variation in data from its central value. The calculation of standard deviation evaluates the quality of data. It can be calculated using the below mention formula:

$$\text{Standard Deviation (} \sigma \text{)} = \sqrt{\frac{\Sigma(X - \bar{X})^2}{N}} \quad (2)$$

3.6.1.4 Coefficient of Variation (C.V)

CV reflects the relationship between standard deviation and mean of the data collected. Coefficient of standard deviation is the relative measure of dispersing with respect to standard. The Coefficient of variance is the percentage calculation of coefficient of standard deviation. It evaluation of its result is likely similar to standard deviation, the consistency and uniformity in data is felt more with less coefficient of variance. It is the improvised version for comparing two pairs of variables independently with their variability. C.V. is calculated as,

$$CV = \frac{\sigma}{\bar{X}} \times 100 \quad (3)$$

Where,

σ = Standard deviation

\bar{X} = sum of the observation

3.6.1.5 Karl-Pearson's Correlation Coefficient Analysis

Correlation coefficient is the statistical representation of strength of association in between movement of two variables. The value of correlation coefficient ranges from +1.0 to -1.0 and sometime zero. The correlation coefficient with value near to +1 indicates the perfectly positive correlation whereas near to -1 or -1 indicates the perfectly negative correlation between the variables. Similarly, 0 value implies that the variables don't have any linear relation with each other. In practical life, it is impossible to obtain either perfect positive or perfect negative correlation.

$$r = \frac{N \Sigma XY - \Sigma X \Sigma Y}{\sqrt{N \Sigma X^2 - (\Sigma X)^2} \sqrt{N \Sigma Y^2 - (\Sigma Y)^2}} \quad (4)$$

Where,

r = coefficient of correlation

X = independent variable

Y = dependent variable

N = number of periods

3.6.1.6 Coefficient of (Multiple) Determination (R^2)

The coefficient of determination is the percentage of change in dependent variable which can be predicated as letting the independent variable constant which also define the relation between

dependent and independent variables. It measures the correlation of variables to what extent it fits the regression line. The value of R^2 is between zero and 1. Where zero value indicates that there is no correlation and the data doesn't associate. Whereas, the value near to 1 indicates the perfect positive association.

3.6.1.7 Regression Equation

Regression analysis is the study of the relationship between one variable called dependent variable and one or more independent or explanatory variables. There are two types regression analysis. One is called simple linear regression analysis, which is measure the relationship of one dependent and one independent variable. And another is multiple-linear regression analysis, which is concerned to demonstrate the relationship between one dependent with more than one independent variables. The regression analysis submits the following two concepts:

The simple linear regression analysis would be;

$$Y = a + bx \quad (5)$$

Where,

Y is the dependent variable

X is the independent variable

Y is the predicted value for observation I and X_1 is the value of X for observation I.

a is the average value of Y when X equals zero.

b is the expected change in Y per unit change in X in this study, the following simple regression has been analyzed.

$$ROA = a + b_1 LACI + b_2 CATA + b_3 LATR \quad (6)$$

3.6.1.8 Return on Total Assets (ROA)

ROA indicates the profit position of company in terms of its total assets and insights the efficiency of company to use and manage its assets in generating profit. It is expressed in percentage. This also demonstrate the relation between the resources and net earnings. It helps the organization to determine its position with the comparative study of using its assets than previous year.

$$\text{Return on assets} = \frac{\text{Netincome}}{\text{Total Assets}} \times 100 \quad (7)$$

4 DATA ANALYSIS AND FINDINGS OF RESEARCH

4.1 Analysis of Result

4.1.1 Return on Assets (ROA)

This ratio is related to net profit after tax (NPAT) and total assets. How efficiently is the assets of a firm able to generate more profit are measured? The calculation of ratio is made dividing NPAT by Total Assets. This ratio delivers the base necessary for a company to deliver adequate amount of return on equity as well. ROA of organization shows the relationship between its resources and its earnings, and provide an idea of judgment to determine the effectiveness of company in utilizing its assets and comparing the return than that of previous. Return on total assets ratio for the period of 2014/15 to 2018/19 is presented in the following table for the three sample joint venture banks of Nepal.

Table 1: Return on Assets of HBL, EBL & NBB

Return on Assets (ROA)			
Banks/ FY	HBL	EBL	NBB
2014/15	1.34	1.85	2.06
2015/16	1.94	1.59	2.57
2016/17	2.19	1.83	2.11
2017/18	1.67	1.97	1.86
2018/19	2.21	1.94	2.08
Mean	1.87	1.84	2.14
Standard Deviation	0.37	0.15	0.26
Co-variance	0.14	0.02	0.07

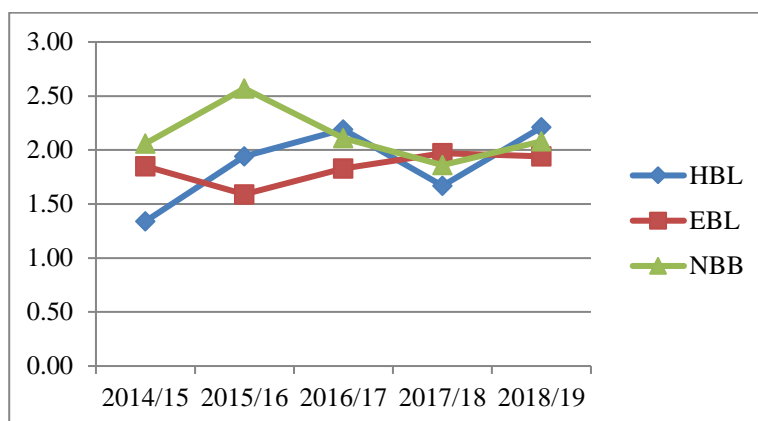


Fig.2.: Return on Assets of HBL, EBL & NBB

The above Table 1 and Figure 1 represents the ROA of three respective banks for the period of five years. The highest return on assets from the year 2014/15 to 2018/19 are 2.06 of NBB, 2.57 of NBB, 2.19 of HBL, 1.97 of EBL and 2.21 of HBL respectively whereas, the lowest return on assets of 1.34 for HBL, 1.59 for EBL, 1.83 for EBL, 1.67 for NBB and 1.94 for HBL respectively. The mean of return on total assets in NBB is found to be 2.14 which are higher than that of other sample banks which indicate that the profitability position of NBB is better as compared to other sample banks. Similarly, standard deviation of EBL is 0.15% which is lower of other two sample banks which shows EBL has consistency return on total assets ratio than that of other sample banks.

4.1.2 Return on Equity (ROE)

Return on Equity is considered to measure the efficiency of the management of bank in using the assets to generate profit. It is the financial measurement of the performance expressed. The shareholder's equity is calculated by deducting company's assets with its debts. Return on Equity ratio for the period of 2014/15 to 2018/19 is presented in the following table for the three sample joint venture banks of Nepal.

Table 2: Return on Equity of HBL, EBL & NBB

Return on Equity (ROE)			
Banks/ FY	HBL	EBL	NBB
2014/15	17.06	17.98	16.64
2015/16	24.53	18.38	19.30
2016/17	21.58	16.04	10.84
2017/18	14.17	16.00	10.36
2018/19	18.34	17.33	12.46
Mean	19.14	16.81	13.92
Standard Deviation	4.02	1.17	3.88
Co-variance	16.17	1.37	15.07

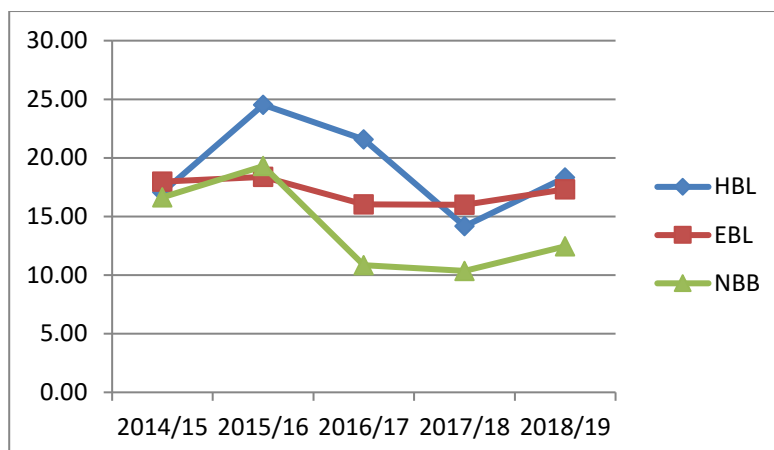


Fig.3.: Return on Equity of HBL, EBL & NBB

The above Table 2 & Figure 2 shows that ROE over the five years period of three sampled banks. The highest return on equity over the defined fiscal year from 2014/15 to 2018/19 are 17.97 of EBL, 24.53 of HBL, 21.58 of HBL, 16.00 of EBL and 18.31 of HBL respectively whereas, and the lowest return on equity are 16.64 of NBB, 18.31 of EBL, 10.84 of NBB, 10.36 of NBB and 12.46 of NBB respectively. The mean of return on equity in HBL is found to be 19.14 which are higher than that of other sample banks which indicate that the profitability position of HBL is better as compared to other sample banks in utilizing the assets by the management. Similarly, Standard deviation of EBL is 1.17 is lower than HBL and NBB which shows EBL has consistent performance by the management in utilizing its assets than of other sample banks whereas, S.D. of HBL is 4.02 which is the highest among the sample bank which demonstrate that there is higher rate of fluctuation in ROE of the bank. From the above data it also illustrates that the performance of NBB is inefficient in utilizing the assets by its management.

5 Summary, Recommendation and Conclusion

5.1 Discussion & Conclusion

The study propose that all three sample banks have inter-relationship between liquidity and profitability. The sample banks are managing liquidity position on best effort they could. However, some liquidity indexes reflect the positive correlation and some that negative relation with the profitability indexes. Banks should be able to maintain the liquid assets in optimum level. Banks are required to invest on long term or midterm loans and advances which offer the higher profit margin, which implies that optimum investment in liquid assets shall be made. The profitability position of the banks is mostly fluctuating for all the sampled banks this might be due to fluctuation in liquidity indexes and other external factors. However, all the banks are putting their effort to gain more profitability in every year.

5.2 Recommendation

Clear financial picture of selected banks can be viewed from all above presentation. Some valuable suggestions and recommendation can be advances to overcome weakness, inefficiency and to improve liquidity position and profitability position. On the basis of above-mentioned findings, the recommendation can be drawn as follows:

- It is highly recommended for some policy implications for the influence of liquidity in the level of profitability and the various factors and variables need to considered so as to increase bank's profitability.
- Banks need to be aware of the management of liquidity, so that banks are not affected by liquidity crisis.
- Management of the banks need to be far sighted in collecting deposits as well as lending the credit facilities to the customers and make investment in some productive sectors and diversify its investment in other marketable securities.

- The banks are found that the saving form the rural communities are being neglected. As directed by NRB to all banking and financial institutions to reach all the local levels by the end of this fiscal year, it is highly recommended to all the sample banks to operate its branches in the rural areas which will consequently be helpful for the banks to grab the saving from the rural communities.
- The banks should enhance their internal factors beside the other factors discussed in this study to enhance its efficiency, proper coordination and continuously reviewing the organizational structure as per the demand of time and situation.
- All the banks are concentrated on their profitability. It is recommended to concentrate on performance, market value, business growth, categorizing its assets, loan, and other various investments by following good governance and under compliance.
- Banks are suggested to be aware of goodwill, market reputation, quality and diversified service and products to gain wide range of customers and get more profit.
- All banks are suggested to uplift the internal competency by development and training to its staffs with enhancing their moral and motivation so that the fluent operation could be experience with retention of customer and new relation could also be developed. These all impact on overall performance of banks.

5.3 Limitations

The study has been conducted with some limitation which are listed below:

- The present study has been undertaken to examine and evaluate the effect of liquidity on profitability of foreign joint venture commercial bank in Nepal with reference to EBL, HBL and NBB out of 28 commercial banks in Nepal.
- The research work has been conducted with different secondary sources of secondary data such as documents published by the concerned banks, other related published and unpublished articles and journals, there annual financial reports etc. and the data are limited with secondary data's only.
- The study has covered only recent five years of data i.e. FY 2014/15 to FY 2018/19
- Out of the numerous affecting factors in considering the liquidity factor and profitability factor only few of them has been considered to evaluate their position.

5.4 Summary

Banks help to integrate every financial activity of the community. However, to operate the commercial banks with growth and improvement liquidity position and profitability position are two major factors which needs to be considered. In fact, this study is can be summarized as below:

- This study has been undertaken to evaluate the influence of liquidity on profitability of foreign joint venture commercial bank in Nepal with reference to EBL, HBL and NBB.
- To study has been carried out with the use of different secondary sources data which are published financial reports of concerned banks, other related published and unpublished articles and journals etc.
- The present study has covered five years of data.
- In the first chapter, contains the introductory part with background of study, statement of problem, major objective of the research, its significance and limitation.
- The second chapter includes the review of various journals, articles and unpublished thesis and presented in terms of theoretical background.
- Third chapter deals with the methods and techniques that have been applied in order to evaluate relation amongst the liquidity and profitability of the sample banks under study.
- In fourth chapter the data and information collected through different sources has been analyzed and presented where analysis and evaluation were conducted with the use of different financial and statistical tool. Various liquidity and profitability ratio where been used as financial tool whereas, average, standard deviation, coefficient of variation, correlation coefficient and regression analysis were used as statistical tools.
- The fifth chapter discuss about the overall conclusion recommendation, discussion, finding and summary and self-review regarding the entire study.

- The liquidity ratio measures the aptitude of a firm and distribution is not in smoothing in all the sample banks.
- Inadequacy in liquidity position of bank may lead to the serious financial problem such as loss of public faith even drag to liquidation of bank.
- Liquidity management is a challenge for banks and so as to earn significant profitability.
- The profitability position of NBB is seem to have better in terms of ROA whereas ROE of HBL is in the higher side in comparison to other two.
- Liquidity in terms of liquid ratio EBL and NBB shares the high liquidity and great ability for new investment opportunities. However, liquidity in terms of CHTDR EBL has higher extend of fund for the purpose to pay for its creditors as compared to other sample banks. Similar CATA of NBB has the higher extent of liquid assets to support its asset base compared to other sample banks. Furthermore, HBL higher portion of loan investment in comparison to total deposit (LADR) which shows that the better utilization of total deposit has been made to earn better profit. Lastly, Cash Reserve Ratio (CRR) of HBL is in higher side which means HBL has manage to keep control over inflation.
- From Correlation analysis of HBL, the relationship of ROA has positive correlation with CACL, CHTDR and LADR conversely, negative correlation with CATA & NRBTDR. Similarly, CACL, CHTDR & LADR has positive correlation with ROE but CATA & NRBTDR are negatively correlated.
- In correlation matrix of EBL, ROA has positive correlation with NRBTDR, CATA and LADR whereas negative correlation with CACL and CHTDR. Further, CACL, CHTDR, NRBTDR and CATA shows negative correlation with ROE. However, LADR is positively correlated.
- With respect to correlation matrix of NBB, CACL, CHTDR& LADR has negative correlation with ROA but CATA & NRBTDR has positive correlation. Moreover, CACL, CHTDR, LADR and NRBTDR are negatively correlated with ROE but CATA has positive correlation.
- The LADR has significant impact in ROA as well as ROE of HBL, EBL and NBB.
- NRBTDR/CRR has weak significant impact on ROA of all sample banks whereas, it has negative impact ROE of NBB and have the positive impact on other two.
- CACL has significant effect on ROA of HBL and EBL whereas there is no significant impact on ROA due to CACL in NBB. Further, CACL has significant impact on ROE on all three sample banks.
- CHTDR has significant effect on ROA and ROE of HBL and EBL whereas NBB has weak significant impact on both the profitability index.
- CATA has significant effect on ROA in HBL, EBL and NBB. Similarly, CATA has significant effect on ROE whereas there is weak positive impact for EBL and NBB.

References

- Ahmed Arif, A.N.A., 2012. Liquidity risk and performance of banking system. *Journal of Financial Regulation and Compliance*, pp.182-95.
- Almumani, M.A., 2013. Almumani, MoLiquidity Risk Management: A Comparative Study between Saudi and Jordanian Banks. *Interdisciplinary Journal of Research in Business*, III(2), pp.1-10.
- Alshatti, A.S., 2015. The Effect of Liquidity Management on Profitability in the Jordanian Commercial Banks. *International Journal of Business and Management*, 10(1), pp.62-71.
- Andrew OMOSIONI Agbada, C.O., 2013. THE EFFICACY OF LIQUIDITY MANAGEMENT AND BANKING PERFORMANCE IN NIGERIA. *International Review of Management and Business Research (IRMBR)*, II(1), p.223.
- Bajaj, R.K.&A., 2019. Caveats When increasing the Paid-Up Capital Requirement for Commercial Banks in Developing Countries: A Study of Nepalese Banks. *Journal of Finance and Bank Management*, 7(2), pp.25-36.
- Botlhale Molefe, P.-F.M., 2016. EFFECT OF CAPITAL AND LIQUIDITY MANAGEMENT ON PROFITABILITY OF MAJOR SOUTH AFRICAN BANKS. In Botlhale Molefe, P.-F.M., ed. *Proceedings of the 28th Annual Conference of the Southern African Institute of Management Scientists*. Vanderbijlpark 1900, 2016. School of Economic Sciences North-West University.

- Botoe, C., 2012. *THE IMPACT OF LIQUIDITY ON PROFITABILITY OF*. Masters Thesis. University of Nairobi.
- Business Management Ideas, n.d. *Liquidity Management By Banks*. [Online] Available at: <https://www.businessmanagementideas.com/notes/market/liquidity-management-by-banks-steps-and-principles/5504> [Accessed 25 March 2020].
- D.Cucinelli, 2013. The determinants of bank liquidity risk within the context of Euro area. *Interdisciplinary Journal of Research in Business*, 2(10), pp.51-64.
- Deloof, 2003. Financial Dependence and Growth. *Economic Review*, 88, pp.86-88.
- Dr. Munther Al Nimer, D.L.W.&D.R.A.O., 2015. The Impact of Liquidity on Jordanian Banks Profitability through Return on Assets. *European Journal of Business and Management* , 7(7), pp.229-32.
- Eric Kofi Boadi, V.S., 2013. The Relationship between Liquidity and Profitability of Listed Banks in Ghana. *International Journal of Business and Social Science*, 4.
- Everest Bank Ltd, 2020. *Everest Bank Ltd*. [Online] Available at: <https://everestbankltd.com/> [Accessed 07 May 2020].
- Faisal Abbas, S.I.a.B.A., 2019. The impact of bank capital, bank liquidity and credit risk on profitability in postcrisis period: A comparative study of US and Asia. *Cogent Economics & Finance*, VII.
- Gale, F.A.&D., 2004. Competition and Financial Stability. *Journal of Money, Credit, and Banking*, 36(3), pp.454-77.
- Godwin E. Bassegy, C.E.M., 2015. BANK PROFITABILITY AND LIQUIDITY MANAGEMENT: A CASE STUDY OF SELECTED NIGERIAN DEPOSIT MONEY BANKS. *International Journal of Economics, Commerce and Management*, III(4), pp.3-6.
- Himalayan Bank Ltd, 2020. *Himalayan Bank Ltd*. [Online] Available at: <https://www.himalayanbank.com/> [Accessed 07 May 2020].
- Ibe, S.O., 2013. The Impact of Liquidity Management on the Profitability of Banks in Nigeria. *Journal of Finance and Bank Management*, 1(1), pp.37-48.
- ICRA Nepal Ltd, 2019. ICRA Nepal Rating Service. *Approach for financial ratio analysis*, February. pp.5-7.
- Ismail, R., 2016. Impact of Liquidity Management on Profitability of Pakistani Firms: A Case of KSE-100 Index. *International Journal of Innovation and Applied Studies* , XIV(2), pp.304-14.
- Khan.I.U, B.A.&., 2011. Liquidity Management Efficiency of Indian Still Companies (A case study). *Far East Journal of Psychology and Business*, 3(3).
- Khokhar, M.M.a.l., 2015. Investigating Liquidity-Profitability Relationship. *Journal of Applied Finance & Banking*, 3, pp.159-73.
- Macharia, W.T., 2013. *THE RELATIONSHIP BETWEEN PROFITABILITY AND LIQUIDITY OF COMMERCIAL BANKS IN KENYA*. Master's Thesis. University of Nairobi.
- Maharjan, A.S.&G., 2012. Impact of Liquidity Management on Profitability : A Comparative Study between NABIL and SCBN. *Lumbini Journal of Business and Economics* , II(2), pp.59-72.
- Maharjan, A.S.&G., 2012. Impact of Liquidity Management on Profitability: A Comparative Study between NABIL and SCBN. *Lumbini Journal of Business and Economics*, 2(2), pp.59-72.
- Mahmud, A.A.K., 2014. Liquidity-Profitability Relationship in Bangladesh Banking Industry. *International Journal of Empirical Finance* , II(4), pp.143-45.
- MATTHEW OSBORNE, A.-M.F.A.M., 2012. Capital and profitability in banking: Evidence from US banks. In MATTHEW OSBORNE, A.-M.F.A.M., ed. *Working Paper Series.*, 2012.
- Mustafa, D.O.A.O., 2019. The Conflict between Liquidity and Profitability and its impact on the Banking Finance, an Empirical Investigation from Sudan (2000-2018). *Global Academic Journal of Economics and Business*, 1(1), pp.27-32.
- Mutahhar, R.A.K.&., 2016. Impact of Liquidity on Profitability of Commercial Banks in Pakistan: An Analysis on Banking Sector in Pakistan. *Global Journal of Management and Business Research: C Finance* , 16(1), pp.53-59.

- Naqvi, A.&, 2009. Non Monetary Effects of The Financial Crisis in the Debt-Deflation Theory of Great Depression, *Econometrical*. 29, pp.337-3357.
- Nepal Bangladesh Bank Ltd, 2020. *Nepal Bangladesh Bank Ltd*. [Online] Available at: <https://www.nbbl.com.np/> [Accessed 07 May 2020].
- Nepal Rastra Bank, 2020. *Capital Adequacy and Liquidity Management*. [Online] Available at: www.nrb.org.np [Accessed 14 July 2020].
- Nires, J.A., 2012. Trade-Off between Liquidity & Profitability: A Study of Selected Manufacturing Firms in Sri Lanka. *Researchers World*, III(4), pp.34-52.
- Olagunju, A.A.O.D.&.O.O.S., 2011. Liquidity Management and Commercial Banks' Profitability in Nigeria. *Research Journal of Finance and Accounting*, II(7), pp.24-26.
- Olagunju, A.A.O.D.a.O.O.S., 2011. Liquidity Management and Commercial Banks' Profitability in Nigeria. *Research Journal of Finance and Accounting* , 2(7/8), pp.24-25.
- Ong Tze San, T.B.H., 2013. Factors affecting the profitability of Malaysian commercial banks. *African Journal of Business Management* , VII(8), pp.649-52.
- Owolabi, S.A.&.S.S.O., 2012. Business Management Dynamics. *International Journal of Business and Social Science*, 2(2), pp.10-25.
- Kumar, A., Rajpurohit, V.S. and Kautish, S., 2020. A Study on Technology-LED Solutions for Fruit Grading to Address Post-Harvest Handling Issues of Horticultural Crops. In *Modern Techniques for Agricultural Disease Management and Crop Yield Prediction* (pp. 203-221). IGI Global.
- Kaur, R., & Kautish, S. (2019). Multimodal Sentiment Analysis: A Survey and Comparison. *International Journal of Service Science, Management, Engineering, and Technology (IJSSMET)*, 10(2), 38-58.
- Niraula, P. and Kautish, S., (2019) Study of The Digital Transformation Adoption in The Insurance Sector of Nepal. *LBEF Research Journal of Science, Technology and Management*, 1(1), pp.43-60.
- Sampathkumar, A., Rastogi, R., Arukonda, S., Shankar, A., Kautish, S. and Sivaram, M., 2020. An efficient hybrid methodology for detection of cancer-causing gene using CSC for micro array data. *Journal of Ambient Intelligence and Humanized Computing*, pp.1-9.
- Kautish, S. and Thapliyal, M.P., 2012. Concept of Decision Support Systems in relation with Knowledge Management–Fundamentals, theories, frameworks and practices. *International Journal of Application or Innovation in Engineering & Management*, 1, pp.1-9.
- Rani, S. and Kautish, S., 2018, June. Association Clustering and Time Series Based Data Mining in Continuous Data for Diabetes Prediction. In *2018 Second International Conference on Intelligent Computing and Control Systems (ICICCS)* (pp. 1209-1214). IEEE.
- Kautish, S., & Thapliyal, M. P. (2013). Design of new architecture for model management systems using knowledge sharing concept. *International Journal of Computer Applications*, 62(11), 27–30.
- Hussain, H., Talib, N., & Shah, I. (2014). The influence of transformational leadership and job satisfaction on Organizational Innovation in Iraqi Higher Education: A Review. *International Journal of Scientific and engineering Research*, 5(6) .
- Rani, S. and Kautish, S., 2018. Application of data mining techniques for prediction of diabetes-A review. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, 3(3), pp.1996-2004.
- Singh, C. and Kautish, S.K., Page Ranking Algorithms for Web Mining: A Review. *International Journal of Computer Applications*, 975, p.8887.
- Kaur, H. and Kautish, S., (2016). "An Implementation of Wireless Sensor Network Using Voronoi _ PSO (Particle Swarm Optimization)", *International Journal for Research in Applied*

Science & Engineering Technology (IJRASET), Volume 4, Issue XI, November 2016, pp.361-368

R.Rehman, Q.S.&., 2011. Interdisciplinary Journal of Research in Business. *Impact of Liquidity Ratios on Profitability*, 1, pp.95-98.

Rasihah, D., 2010. Theoretical framework of profitability as applied to commercial banks in Malaysia. *European Journal of Economics, Finance and Administrative Sciences*, XIX(19), pp.76-79.

Safakli, O.V., 2007. Credit Risk Assessment for the Banking Sector of Northern Cyprus. *Banks and Bank Systems*, 2(1), pp.21-25.

Saleem, Q.&.R.R., 2011. Interdisciplinary Journal of Research in Business. *Impact of Liquidity Ratios on Profitability*, 1, pp.95-98.

Shipho, T.O.&.T.M., 2011. EFFECTS OF BANKING SECTORAL FACTORS ON THE PROFITABILITY OF COMMERCIAL BANKS IN KENYA. *Economics and Finance Review*, I(5), pp.1-30.

Shrestha, B.P., 2012. Impact of Liquidity on Profitability of Commercial Banks in Nepal. *PYC Nepal Journal of Management*, V(1), pp.27-29.

Shrestha, B.P., 2012. Liquidity association of Commercial Banks in Nepal. *People's Journal of Management*, 1(1), pp.1-8.

Tafirei Mashamba, F.K., 2017. A Look at the Liquidity Management Practices of Banks in South Africa. *Journal of Economics and Behavioural Studies*, IX(3), pp.113-20.

Tanveer Bagh, S.R.T.A.I.L.M.A.K., 2017. The Causative Impact of Liquidity Management on Profitability of Banks in Pakistan: An Empirical Investigation. *International Journal of Academic Research in Economics and Management Sciences*, VI(3), pp.153-65.

Tegbaru Awulo, A.A.B.W.C., 2019. Impact of Liquidity on Profitability of Bank: A case of Commercial Bank of Ethiopia. *Research Journal of Finance and Accounting*, 10(1), pp.26-34.

Valming, S.L.&.S., 2009. *Impact of Liquidity Management Profitability: A study of the adaption of liquidity strategies in a financial crisis*.

Victor Curtis Lartey, S.A.a.E.K.B., 2013. The Relationship between Liquidity and Profitability of Listed Banks in Ghana. *International Journal of Business and Social Science*, 4(3), pp.48-55.

Zidan, K., 2020. Impact of Liquidity Management on the Profitability of Banks Operate in Palestine. *International Journal of Business and Social Science*, II(1), pp.12-13.