

# Relation between Liquidity and Profitability of Nabil Bank and Everest Bank Limited

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## Abstract

*This research aims to examine the relationship between liquidity and profitability, focusing on two prominent commercial banks in Nepal: NABIL Bank Limited and Everest Bank Limited (EBL). The study utilizes correlation and regression analyses to investigate the impact of liquidity on the profitability of these two banks. The main findings of the study are derived from the analysis of financial data. The study employs a quantitative research approach, utilizing financial data from both banks over a ten-year period (i.e., 2012/13 to 2021/22). Various liquidity and profitability ratios, including credit to total deposit ratio, cash and bank balance to total deposit ratio, total liquid fund to total deposit ratio, a total liquid fund to current liabilities ratio, asset quality ratio and return on assets, are calculated and analyzed. Findings reveal that while there is no significant relationship between certain liquidity ratios and profitability, the cash and bank balance to total deposit ratio (CABTDR) positively influences profitability for NABIL. Additionally, the total liquid fund to total deposit ratio (LFTDR) and total liquid fund to current liabilities ratio (LFTCLR) negatively impact profitability in both banks. The study emphasizes the importance of maintaining optimal liquidity levels and improving asset quality to enhance profitability. Overall, liquidity's influence on profitability is relatively weaker compared to asset quality.*

**Keywords:** *Liquidity, Profitability, Asset quality, Commercial banking, Financial performance, Risk management.*

## 1. Introduction

Liquidity and profitability are crucial elements that organization keeps in mind while assessing their financial position. These are one of the most crucial challenges in corporate finance, and they are important to any bank's survival. A bank's short-term existence is determined by its liquidity, but its long-term development and survival are determined by its profitability. The primary role of a commercial bank is to accept deposits and make loans. Simultaneously, it must maintain appropriate cash. If case of negligence, the bank may face risk. Liquidity is a financial term that means the amount of capital that is available for investment. Bank liquidity refers to the ability of the bank to ensure the availability of funds to meet financial commitments or maturing obligations at a reasonable price at

all times. It is the bank's ability to immediately meet cash, cheques, other withdrawal obligations and legitimate new loan demand while abiding by existing reserve requirements. Bank liquidity means a bank has money where they need it particularly to satisfy the withdrawal needs of the customers (Wasiuzzaman and Tarmizi, 2010).

Liquidity management is crucial in financial management decisions. Companies that manage the trade-off between profitability and liquidity management can achieve optimal liquidity management. The liquidity exposure of commercial banks can be calculated by examining the sources and uses of liquidity. Total net liquidity is calculated using this method by subtracting the total liquidity uses from the total of liquidity sources. Different liquidity exposure ratios, such as borrowed funds to total assets, core deposits to total assets, loans to deposits, and commitments to lend to total assets, are used to assess a commercial bank's liquidity position (Bhunia and Khan, 2011).

Profitability refers to the net income of the company (Bank) where the company's revenues exceed its expenses. Income is generated from the activities of the companies (Banks) and expense is the cost of resources that are used to generate profit. Profitability is the main objective of the companies. Businesses cannot survive in the market in the long run without profitability. So, evaluating past profitability, calculating current profitability and foretelling future profitability is very important for the company. Revenue and expense are shown in the income statement which refers to the profitability of the company while cash inflow & cash outflow are shown at cash flow statement which refers to the liquidity of the company (Das et al., 2015).

For this study, following are the problem statements and objectives are ascertained. What connection exist between NABIL Bank and Everest Bank Limited on liquidity and profitability? and, how does confined liquidity affect the profitability of NABIL Bank and Everest Bank Limited? The objectives are to identify the relationships and affect liquidity and profitability of NABIL and EBL.

## **2 Literature Review**

Thus, this paper contributes to literature by providing empirical evidence regarding some key factors that influence the liquidity associated with bank performance.

**Anticipated Income Theory:** This theory holds that a bank's liquidity can be managed through the proper phasing and structuring of the loan commitments made by a bank to the customers. Here the liquidity can be planned if the scheduled loan payments by a customer are based on the future of the borrower. The doctrine of anticipated income, as formalized by Prochnow (1949), embodied these ideas and equated intrinsic soundness of term loans, which were of growing importance, with appropriate repayment schedules adapted to the anticipated income or cash flow of the borrower. The theory emphasizes the earning potential and the credit worthiness of a borrower as the ultimate guarantee for

ensuring adequate liquidity. This theory has encouraged many commercial banks to adopt a ladder effect in investment portfolio.

This theory satisfies the three major objectives of liquidity, safety and profitability. Liquidity is settled to the bank when the borrower saves and repays the loan regularly after certain period of time in installments. It fulfills the safety principle as the bank permits a relying on good security as well as the ability of the borrower to repay the loan. The bank can use its excess reserves in lending term-loan and is convinced of a regular income. Lastly, the term-loan is highly profitable for the business community which collects funds for medium-terms.

The theory of anticipated income is not free from demerits. This theory is a method to examine a borrower's creditworthiness. It gives the bank conditions for examining the potential of a borrower to favorably repay a loan on time. It also fails to meet emergency cash requirements.

**The Shift-Ability Theory :** The shift-ability theory of bank liquidity was propounded by H.G. Moulton who asserted that if the commercial banks maintain a substantial amount of assets that can be shifted on to the other banks for cash without material loss in case of necessity, then there is no need to rely on maturities. According to this view, an asset to be perfectly shift able must be immediately transferable without capital loss when the need for liquidity arises.

This theory posits that a bank's liquidity is maintained if it holds assets that could be shifted or sold to other lenders or investors for cash. This point of view contends that a bank's liquidity could be enhanced if it always has assets to sell and provided the Central Bank and the discount Market stands ready to purchase the asset offered for discount. Thus, this theory recognizes and contends that shift-ability, marketability or transferability of a bank's assets is a basis for ensuring liquidity.

The shift-ability theory has positive elements of truth. Now banks obtain sound assets which can be shifted on to other banks. Shares and debentures of large enterprises are welcomed as liquid assets accompanied by treasury bills and bills of exchange. This has motivated term lending by banks.

Shift-ability theory has its own demerits. Firstly, only shift-ability of assets does not provide liquidity to the banking system. It completely relies on the economic conditions. Secondly, this theory neglects acute depression, the shares and debentures cannot be shifted to others by the banks. In such a situation, there are no buyers and all who possess them want to sell them. Third, a single bank may have shift-able assets in sufficient quantities but if it tries to sell them when there is a run on the bank, it may adversely affect the entire banking system. Fourth, if all the banks simultaneously start shifting their assets, it would have disastrous effects on both the lenders and the borrowers.

**Commercial Loan Theory:** The commercial loan or the real bills doctrine theory states that a commercial bank should forward only short-term self-liquidating productive loans to business organizations. Self-liquidating loans are those which are meant to finance the production, and movement of goods through the successive stages of production, storage, transportation, and distribution.

The theory also emphasizes the maturity structure of bank assets (loan and investments) and not necessarily the marketability or the shift-ability of the assets. Also, the theory assumes that repayment from the self-liquidating assets of the bank would be sufficient to provide for liquidity. This ignores the fact that seasonal deposit withdrawals and meeting credit request could affect the liquidity position adversely. Moreover, the theory fails to reflect in the normal stability of demand deposits in the liquidity consideration. Also, the theory assumes that repayment from the self-liquidating assets of a bank would be sufficient to provide for liquidity. This ignores the fact that seasonal deposit withdrawals and meeting credit request could affect the liquidity position adversely.

These short-term self-liquidating productive loans acquire three advantages. First, they acquire liquidity so they automatically liquidate themselves. Second, as they mature in the short run and are for productive ambitions, there is no risk of their running to bad debts. Third, such loans are high on productivity and earn income for the banks.

Despite the advantages, the commercial loan theory has certain defects. First, if a bank declines to grant loan until the old loan is repaid, the disheartened borrower will have to minimize production which will ultimately affect business activity. If all the banks pursue the same rule, this may result in reduction in the money supply and cost in the community. As a result, it makes it impossible for existing debtors to repay their loans in time.

**Research Gap:** Many studies on the liquidity management analysis of commercial banks have been conducted both in foreign countries and in the Nepalese context. All previous research and studies focused on various aspects of credit and liquidity by linking them to commercial bank performance. There is also a lot of research being done in the micro topic of financial instruments, but very few research or studies has been done on the liquidity and profitability analysis of two joint venture commercial banks in Nepal.

The previous study simply looked at a few variables and did not describe the precise factors that influence profitability. Previous research was incomplete in demonstrating the impact of profitability on liquidity retention. Due to the conflicting impact of profitability, it has become insufficient to explain the impact on operational efficiency and specific problems faced by banking sectors. So, the current study attempts towards fulfilling this lacking to some extent.

In this study, the researcher attempts to analyze the relationship between liquidity and profitability taking limited but reliable variables.

## Conceptual Framework

Independent Variables

Dependent Variables

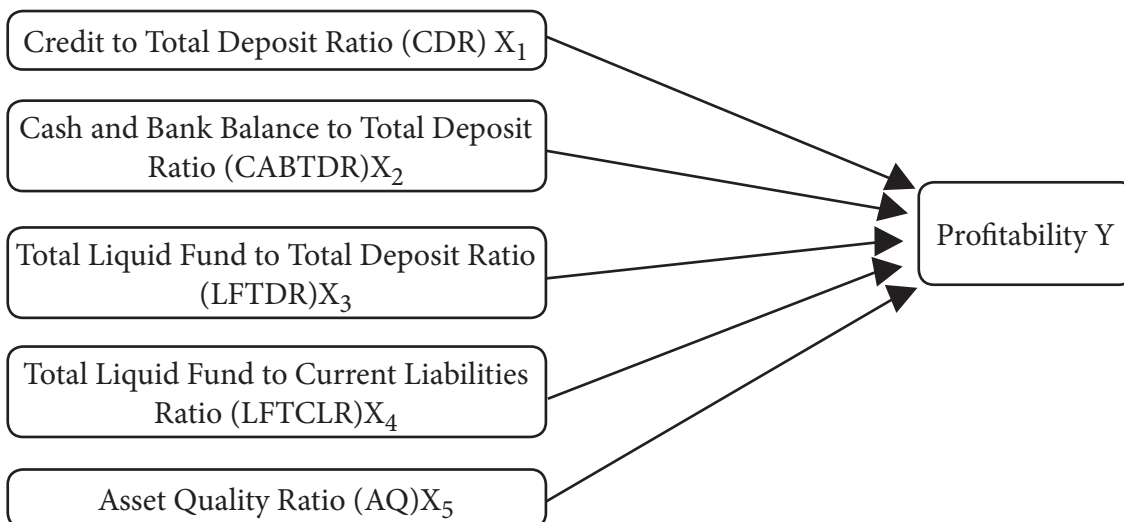


Figure 1: Conceptual Framework of the Study

### 3. Research Methodology

Research methodology is the style, framework, or approach of systematically identifying the solution to a given research problem. The reasons for using a certain instrument or technique in research are defined by the research methodology. Research technique is a component of proactive management that cuts down on costs, time, and unnecessary analysis strain.

This section deals with the research paradigm, design, population, and sampling methods used in the study. The methods of data collection used for the study is detailed, followed by the tools and methods used in analyzing the data.

**Population and Sample:** There are altogether 21 commercial banks functioning in the country. Out of 21 commercial banks in Nepal there are 5 joint venture natured banks and for the study only NABIL Bank Limited and Everest Bank Limited has taken as a sample.

**Method of Data Collection and Analysis:** The research used traditional methods as well as SPSS 25.0, a computer program, to analyze the data gathered using both descriptive and analytical statistics. For the analysis of the data, the financial and statistical tools relevant to the topic are used. They are as follows.

**Regression Analysis:** Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent variable and one or more independent

variables. It can be utilized to assess the strength of the relationship between variables. For the study we use multiple regression model to identify the relationship between liquidity and profitability. Here liquidity is independent variable and profitability is the dependent variable.

The following model is formulated to measure the relationship between liquidity and profitability.

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + e$$

Where,

Y = Return on Asset

$b_0, b_1, b_2, b_3, b_4, b_5$  are regression coefficients.

$X_1, X_2, X_3, X_4, X_5$  are independent variables.

$X_1$  = Credit to total deposit ratio

$X_2$  = Cash and bank balance to total deposits ratio

$X_3$  = Total liquid fund to total deposit ratio

$X_4$  = Total liquid fund to current liabilities ratio

$X_5$  = Asset Quality ratio

e = Error term

#### 4. Result and Analysis

Credit to Total Deposit Ratio (CDR)

Figure 2 show the trend of credit to total deposit ratio of sample banks during the study period i.e., 2012 to 2022.

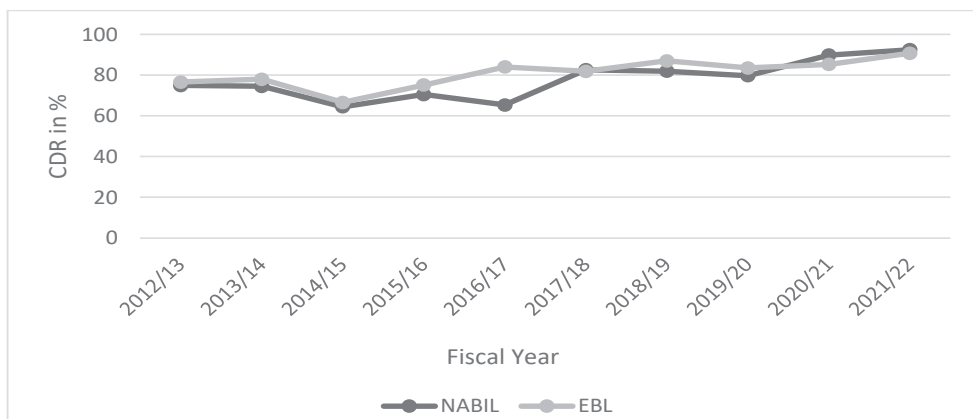


Figure 2: Credit to Total Deposit Ratio

Figure 2 reflects the trend analysis of the credit to total deposit ratio of NABIL and EBL. The figure shows the ratio is in decreasing trend in the fiscal year 2014/15 of both banks and reached to minimum ratio on the calculation period. Then the ratio had improved along

with decrement during the various period of the study. The bank’s data has shown that the banks have made wonderful performance in the recent fiscal year with the highest ratio of 92.19% in NABIL and 90.77% in EBL. But compared to the average ratio of both banks, the EBL ratio is higher than that of NABIL.

### Cash and Bank Balance to Total Deposit Ratio (CABTDR)

Figure 3 to show the trend of cash and bank balance to total deposit ratio of sample banks during the study period i.e., 2012/13 to 2021/22.

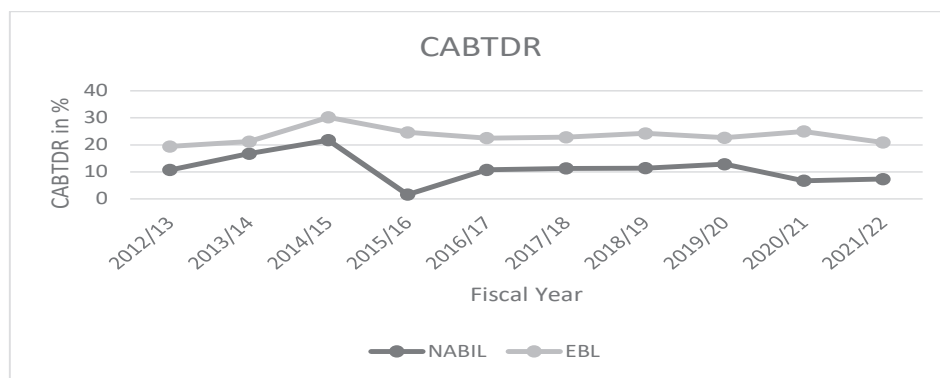


Figure 3: Cash and Bank Balance to Total Deposit Ratio (CABTDR)

Figure 3 shows that this ratio was lowest in the fiscal year 2015/16 of NABIL and 2012/13 of EBL. Similarly, the ratio is highest in the fiscal year 2014/15 of NABIL and EBL. The figure has shown a fluctuating trend. A higher ratio indicates the higher liquidity position of the banks. As per ratio, we can imply that the liquidity ratio of the banks is lower in the recent fiscal year.

### Total Liquid Fund to Total Deposit Ratio (LFTDR)

Figure 4 to show the trend of the liquid fund to total deposit ratio of sample banks during the study period i.e., 2012/13 to 2021/22.

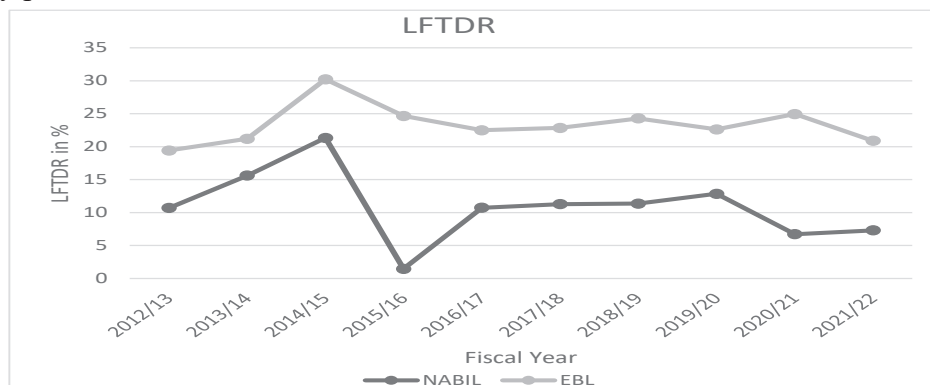


Figure 4: Total Liquid Fund to Total Deposit Ratio (LFTDR)



Figure 4 shows the given ratio is higher in the fiscal year 2014/15. The fluctuating trend shows that the ratio is increasing from fiscal year 2012/13 to 2014/15. Then the ratio of EBL is decreasing till the fiscal year 2016/17 and little improvement in 2018/19. Likewise, the ratio of NABIL is increasing till the year 2019/20. In the recent year, the ratio is 7.30% and 20.88% of NABIL and EBL respectively. The lower ratio in the figure shows the bank was facing an acute liquidity shortage during that period.

### Total Liquid Fund to Current Liabilities Ratio (LFTCLR)

Figure 5 to show the trend of the liquid fund to current liabilities ratio of sample banks during the study period i.e., 2012/13 to 2021/22.

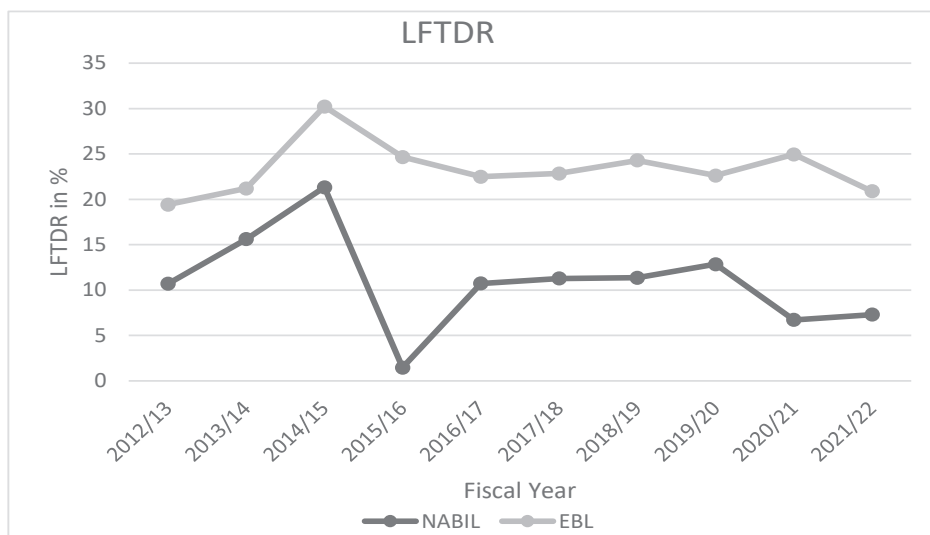


Figure 5: Total Liquid Fund to Current Liabilities Ratio (LFTCLR)

Figure 5 shows the fluctuating trend of LFTCLR from the fiscal year 2012/13 to 2021/22. The figure reflects that the bank has a higher liquidity position in the year 2014/15. In the starting study period, the ratio of NABIL and EBL was 8.87% and 18.56%. Due to various reasons, the figure shows the fluctuating trend line during the study period. In the last fiscal year 2021/22, the ratio of NABIL and EBL is 6.65% and 19.33% respectively.

### Return on Assets (ROA)

A financial ratio known as return on assets (ROA) measures a company's profitability in relation to its total assets. ROA can be used by corporate management, analysts, and investors to assess how effectively a company uses its resources to make a profit. Investors can determine the efficiency of a company by looking at its return on assets (ROA) statistic. Because the business may make more money with a less investment, the higher the ROA number, the better. Simply put, a higher ROA translates into greater asset efficiency. A higher ROA indicates that a company is using its assets more efficiently to generate profits.



S.N.	F/Y	NABIL (%)	EBL (%)
1	2012/13	3.25	2.39
2	2013/14	2.89	2.25
3	2014/15	2.06	1.85
4	2015/16	2.32	1.68
5	2016/17	2.69	1.72
6	2017/18	2.61	1.97
7	2018/19	2.11	1.94
8	2019/20	1.58	1.42
9	2020/21	1.71	0.89
10	2021/22	1.27	1.13
Average		2.249	1.72
S.D.		0.62	0.46
C.V.		27.7	27.24

(Source: Annual Reports of NABIL and EBL from F/Y 2012/13-2021/22)

The table represents the Return on Assets (ROA) for two banks - NABIL and EBL - for ten financial years, from 2012/13 to 2021/22. The table shows the highest ratio in the year 2012/13 (i.e., 3.25% of NABIL and 2.39% of EBL). Similarly, the lowest ratio is 1.27% of NABIL in the year 2021/22 and 0.89% of EBL in the year 2020/21. The average ROA for NABIL over the ten-year period is 2.249%, while the average ROA for EBL is 1.72%. This suggests that NABIL has been more profitable than EBL, on average, over the period. However, there is some variability in the data. This suggests that the variability in NABIL's ROA is relatively high compared to its average, whereas EBL's variability is somewhat lower.

The standard deviation for NABIL is 0.62%, while for EBL it is 0.46%. This indicates that NABIL's ROA has been more volatile than EBL's over the ten-year period. But comparing two banks, C.V. of EBL (i.e., 27.24%) is lower than NABIL. This means that liquidity position is more consistent in EBL. So, EBL is better in profitability position in terms of low variation. This suggests that the variability in NABIL's ROA is relatively high compared to its average, whereas EBL's variability is somewhat lower.

It can be further explained by following figure.

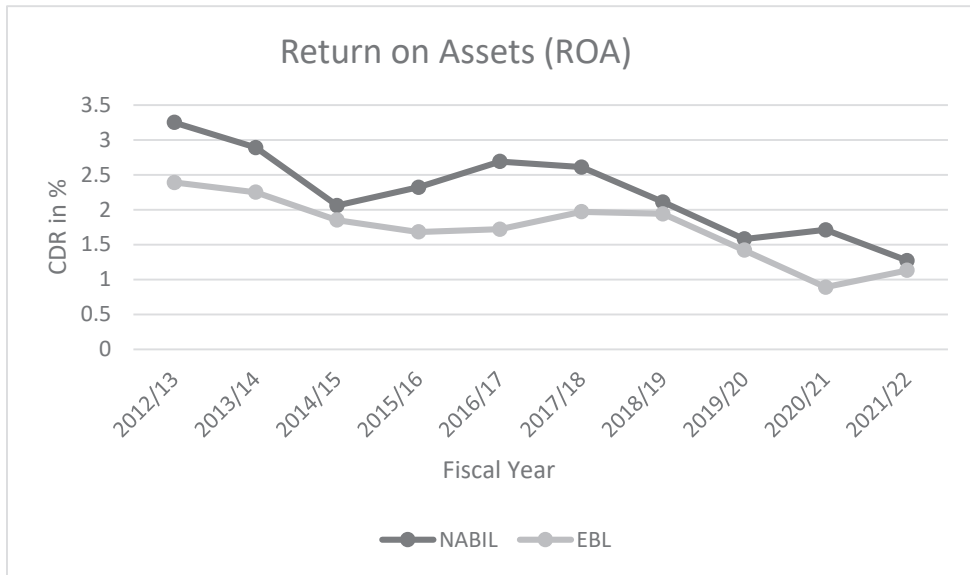


Figure 6: Return on Assets (ROA)

Figure 6 shows the fluctuating trend of the ROA of sampled banks from the year 2012/13 to 2021/22. The highest ROA is in the year 2012/13 of both banks. Similarly, the lowest ROA of NABIL is in the year 2021/22 and EBL is in the year 2020/21. During the study period, in recent years the ROA has decreased in comparison to the base year.

## 5. Conclusion

Liquidity is the most sensible and crucial aspect of the bank. One of the first indications that a bank is having major financial problems is frequently a lack of appropriate liquidity, which also causes the public to lose faith in institutions. Hence, maintaining sufficient liquidity is a never-ending challenge for bank management and will always have a big impact on the bank's profitability.

Efficiency is measured by profitability. It shows how successful the company was in generating the anticipated profit. It displays the bank's overall performance. The profitability of banks is directly linked to their liquidity position. To maintain profitability, banks in Nepal need to have an efficient liquidity management strategy that ensures an optimal balance between liquidity and profitability. Effective liquidity management can help banks seize opportunities, maintain their reputation, and provide long-term value to their stakeholders.

In conclusion, managing liquidity and profitability is essential for the success of businesses in Nepal. Striking a balance between these two factors requires careful planning, sound financial management, and a deep understanding of the local market dynamics. By

maintaining a healthy liquidity and profitability ratio, businesses can ensure sustainable growth and long-term success.

The study came to the following conclusions:

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- CABTDR has a positive relationship with ROA for NABIL, but the CABTDR liquidity ratio was omitted from the analysis conducted on EBL due to perfect collinearity with other variables in the model.
- Both banks' LFTDR and LFTCLR exhibit a negative correlation with ROA, however EBL's is less severe than NABIL's.
- Since EBL has a more stable liquidity position than NABIL, the ROA at NABIL is more volatile than their average variable rate.
- For both banks, CDR significantly decreases ROA, while EBL is affected less than NABIL.
- CABTDR appears to significantly increase ROA for NABIL, but there is no information available for EBL.
- LFTDR dramatically lowers ROA for both banks, while EBL is affected less so than NABIL.
- Both banks' ROAs are negatively impacted by LFTCLR, although EBL is more negatively impacted than NABIL.
- For both institutions, AQ has a moderately positive impact on ROA.

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