

The effect of liquidity on the banks' profitability: empirical evidence from the commercial banks of Afghanistan

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Abstract:

The study aims to inspect liquidity's influence on the profitability of commercial banks in Afghanistan. Literature is available on the topic in developed and developing economies. But there is a lack of research on the relationship between liquidity and profitability in Afghanistan. Therefore, an attempt has been made to analyze the impact of liquidity management in the banking sector of Afghanistan. Based on the board in the banking frameworks, the new global monetary emergency is attentive to the importance of productive liquidity. The five-year data was collected from 12 commercial banks in Afghanistan from 2016 to 2020. We used OLS techniques for estimation. The study results show that the networking capital ratio has an insignificant effect on ROA. The current ratio positively and significantly affects ROA in the case of private commercial banks in Afghanistan. Based on the results, it is concluded that liquidity notably impacts commercial banks' profitability in Afghanistan. These findings suggest that commercial banks should manage their operational risk properly by diversifying their portfolio into return-generating assets, prudently controlling their operational risk, and reducing their leverage levels. The regulatory authority should expand its regulatory framework for the guidance and support of the banks.

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1. Introduction

In today's economic globe, the financial crisis impacts the majority of nations' economic problems. This is evident in the economies of a large number of emerging economies as well as established countries (Owolabi & Obida, 2012). The majority of the world's governments have become debtors to other countries and institutions such as the IMF as a result of the financial crisis. The liquidity concept has emerged as the most significant in the economy in this setting (Lamberg & Vålming, 2009). When it comes to the financial crisis, companies are in the same boat. The main reasons for this are growing inflation and negative foreign currency rates (Owolabi & Obida, 2012). The actual worth of money is lowered as a result of the aforementioned factors. As a result, managers carry a larger burden of ensuring that the business maintains an adequate level of liquidity. However, business-managers implement techniques to boost firm profitability and shareholder value. As there is a financial crisis scenario, the managers must maintain an acceptable amount of the liquidity inside enterprises to execute day-to-day financial obligations (Eljelly, 2004; Khan & Mahmood, 2023). In relation to the banks' capital base, the ability of banks to generate more revenue than cost is the bank profitability. The bank's liquidity refers to the ability of banks to meet its obligations timely (Athanasoglou et al., 2008).

The significance of preserving liquidity assets inside the company is the potential cost of obtaining profitability. The backbone of the firm may be defined as its liquidity-managing and their related strong policies. The managers cannot do in advance their future unless the company has appropriate cash reserves. A corporation is considered unhealthy if it cannot earn a profit. However, if the company lacks money, it will collapse and finally die. In this sense, liquidity is a necessary condition in order to determine the business's continued existence (Niresh, 2012). As a result, liquidity-management has taken on a more vital role than other operations. Various stakeholders are concerned with the firm's financial activity in order to make better judgments.

For the reasons listed below, the following parties are particularly concerned about the liquidity position and profitability level. Shareholders are the owners of corporations that are publicly traded. They invest in stocks in order to gain a higher return on their money. As a result, they are predominantly anxious about the company's financial condition, because liquidity affects profitability (Saleem & Rehman, 2011). As previously indicated, potential investors place a premium on the firm's liquidity and profitability. Managers make choices for the firm. They must make better and more constructive decisions for commercial banks. As a result, managers should be worried about the company's short- and long-period financial problems, because the short term serves as the foundation for long-term activity and survival. Managers are in charge of ensuring that the production cycle works smoothly and efficiently, that short-period financial obligations are paid on schedule, and that profit levels are improved to ensure the bank's success. As a result, banks do not benefit from a shortage of or surplus liquidity today or in the future. Furthermore, the creditors value this relationship. Debtors are classed as short-term, or

long-period built on their maturity-date. Short-term creditors will look at the bank's liquidity before selling products on credit.

They beat somebody to it getting money for their selling products within a short period of time. To accomplish their wishes, the corporation should retain an adequate amount of liquidity assets. Long-term creditors are also concerned about the liquidity position for obtaining interest income and the level of profitability for the security of loan capital amount. Employees and labour groups are concerned about the company's cash situation. Because they essential to know if the firm can satisfy its employee-related responsibilities. To meet such commitments, the corporation needs guarantee that the production process is going well. Furthermore, profitability has a considerable impact on employment security, promotions, compensation increases, and other factors. Employees may suffer as a result of an excess or shortage of cash. Following an examination of the aforementioned criteria, it is obvious that liquidity is an important requirement. As a result, most parties make better decisions when considering the company's cash situation. Because of the close link between profitability and liquidity, a firm must maintain a tolerable level of liquidity. As a result, increasing one variable causes a reduction in the other. There is no standard or formal guideline for determining the most suitable liquidity level for businesses. It is determined by the businesses' balance sheet conditions (Owolabi & Obida, 2012). However, organizations with minimal current assets will have difficulty with continued operations. Instead of low balances, If a corporation has significantly more liquidity assets than daily requirements, its profitability suffers (Van & Wachowicz, 2005).

Many research studies have been conducted on the important factors of bank profitability and according to their results liquidity found to be one of its most important determinants. Like Herison et al. (2022) and Hidayat and Dewi (2023). But these studies focused on developed and developing countries. Thus, such findings can't be pragmatic to the Afghanistan setting since circumstances differ from these countries. Furthermore, little study has been conducted to investigate the link between ROA and liquidity in the Afghanistan manufacturing industry. Taking the aforementioned aspects into account, this study tries to fill the void by doing research on Afghan manufacturing-enterprises and generate a significant profit are two major causes of liquidation. These are some of the most important factors in assessing a business's "going concern." As a result, firms are implementing a number of approaches to progress their liquidity location. Strategies for increasing liquidity inside the company, which is typically disregarded in times of auspicious economic conditions (Pass & Pike, 1984). This study's problems are to judge the link between liquidity-managing and ROA of different. Maintaining enough liquidity implies that funds are narrowed to liquid-assets, leaving them inaccessible for operational usage or higher-yielding investments. As a result, the upkeep of such liquid assets incurs an opportunity cost, which may have an influence on the firm's overall profitability. In other words, boosting profitability reduces firm liquidity, but focusing too much on liquidity reduces profitability. As a result, businesses must constantly find a balance between the opposing purposes of profitability and liquidity. The liquidity of the company should not be

extremely high or too low. Disproportionate requirement on liquidity results in the accretion of idle funds that do not produce profits for the firm (Backus et al., 1980). Insufficient liquidity, on the other hand, may hurt the firm's goodwill, reduce the firm's credit ratings, and require the firm's assets to be liquidated (Niresh, 2012).

According to the researcher, no specific research on the mentioned issue has been undertaken in Afghanistan. So, in the investigator's opinion, knowing the exact amount of liquidity and profit will be beneficial to Afghanistan's banks. The researcher attempts to perform study on the mentioned research gap. The following exploratory question will be addressed: Is there a substantial relationship between debt payment capabilities and profitability? Because no relevant study on the inspiration of liquidity on commercial-bank performance had been undertaken in Afghanistan, the researcher believed that a study on the aforementioned topic was warranted. Therefore, the goal of the study to inspect the bond among liquidity and ROA of the commercial bank in Afghanistan.

This study's findings will be employed in the preparation of managing-cash and liquidity, as well as adding to the present body of information on commercial-banks short-period debt payment capacities and presentation in a new geographical-location. The conclusions of this study can be utilized to manage liquidity-crises in banks and to encourage enterprises to keep greater liquidity in order to be profitable. Managers are already answering to liquidity problems by developing new liquidity criteria that ensure financial institutions' adequacy, solidity, and adaptability. This research will give guidance to bank authorities on how to manage their everyday operations, make effective use of their capital, and determine the correct amount of current-assets and current-liabilities. Assets and liabilities, as well as earnings, must be maintained in a fiscal year. The answers of this study will be useful to financial professionals when undertaking different financial-ratio analyses. The findings of this study will also be beneficial to students who wish to pursue a profession in the finance-field. The examine will also be beneficial to potential-investors interested in investing in the banking sector.

2. Literature Review

The trade-off between liquidity and profitability is the issue of grave concern for the companies. Gitman et al. (2015) suggested that excessive liquidity is expense and only its optimal level can benefit liquidity. To determine the parameters, Haidary and Abbey (2018) employed descriptive statistics and a multivariate regression model. They discovered that, with the exception of the liquidity variable, internal bank variables have a considerable influence on profitability and that external economic determinants are inconsequential at the 5% confidence level. As a result, ROA in Afghan-banks is governed by the effectiveness of their organization rather than the macroeconomic component of GDP. Ali et al. (2019) investigate the link between profitability, liquidity, and growth, of nonfinancial enterprises itemized on the Bursa, Malaysia, using data from 50 Malaysian non-financial public listed firms. They demonstrate that liquidity has a substantial encouraging association with company profitability (ROA).

However, liquidity as measured by the quick ratio has little effect on ROA. They also demonstrate that company expansion, as measured by sales-growth, has a harmful connection with ROA.

Cheng et al. (2020) investigated using data from enumerated banks on the Johannesburg-SE from 2012-2018, as well as Smart PLS-SEM. They came to the conclusion that credit risk has a considerable encouraging bond with bank ROA. Similarly, liquidity risk has an encouraging and substantial link with bank ROA. However, operational risk was found to have a harmful bond with bank ROA. Bank explicit risk was shown to have an encouraging and substantial relationship with risk. It was insignificantly related to ROA. Similarly, Jihadi et al., (2021) discovered that the liquidity, activity, leverage, and ROA are important to company value. Corporate Social Responsibility (CSR) acts as a moderating variable on the influence of financial ratios on firm value, while business size acts as a control variable. Wulaningrum et al. (2022) estimated using data from automobile businesses registered on the Indonesia-Stock-Exchange (ISE) from 2017-2021 using Ordinary Least Square regression (OLS). They discovered that moderately-independent factors, liquidity- and activity-ratios had little effect on profit changes. Meanwhile, the solvency and profitability-ratios have an adverse and considerable impact on profit fluctuations. At the same time, the liquidity, profitability, solvency, and activity-ratios have a favourable and substantial influence on profit changes. Hidayat and Dewi (2023) estimated using data from coal mining businesses registered on the ISE between 2017-2020 using Panel regression. They discovered that liquidity and working capital-turnover had no substantial impact on profitability, however leverage has a considerable impact. Ibe (2013) argued that there will be no connection between liquidity and profitability of banks in the short run. The matter of the fact is that the banks desired to attain the maximum level of liquidity through capital structure.

Ginting (2018) investigates the influence of CR, working-capital (WC), and total-asset (TA) turnover on ROA in part and concurrently. From 2012 to 2015, 47 real-estate businesses were listed on the Indonesia Stock-Exchange (ISE), and the twenty (20) samples were picked using a purposive sampling approach. This study relied on secondary data, and estimation was accomplished by OLS analysis. They discovered that the CR, WC, and TA-turnover had a large and favourable influence on ROA in real-estate businesses listed on the ISE from 2012 to 2015. Vicente-Ramos et al. (2020) examined a sample of 23 Lima stock market businesses from 2009 to 2018. Profitability (ROA) has an adverse bond with the average inventory period (PPI), as well as an adverse bond with collection-period, and ultimately a helpful bond with the payment (average).

Gultom et al. (2021) determine the impact of the CR, debt-to-asset-ratio, and WC-turnover on ROA. They used all in plastic and packaging firms itemized on the ISE as population, while the sample that fits the sampling criteria was observed for seven years and up to six years. The data was collected utilizing documentation procedures and OLS as the analysis techniques employed. Their findings revealed that the independent factors had a concurrent influence on

ROA. While the partial test shows that the CR variable has a noteworthy effect on ROA, the Debt-to-Assets ratio variable and Working-Capital turnover have no effect on ROA.

Herison et al. (2022) assess the influence of WC, willingness, and receivables turnover on the ROA of trading sub-sector businesses itemized on the ISE. From 2015 to 2019, they discovered that WC-turnover has a partially adverse and considerable influence on the ROA. Moreover, they indicate that WC and receivables-turnover have a helpful and substantial effect on ROA. From 2017 to 2020, Hidayat and Dewi (2023) investigate the impact of liquidity, and WC-turnover on ROA in coal-mining businesses listed on the ISE. They discovered that liquidity had little influence on ROA. Furthermore, leverage has a substantial impact on profitability. Similarly, the working capital turnover of coal-mining sub-sector businesses listed on the ISE has no substantial influence on profitability.

In short, Some scholars have focused on the panel contains comparison of Europe, Japan, and Canada, (Short, 1979), Australia and US, and Europe (Bourke, 1989), Malaysia and China (Said & Tumin, 2011), others focused on the single country like, Greece (Athanasoglou et al., 2008), India (Sangmi & Nazir, 2010), Uganda (Rogers, 2006), Turkey (Anbar & Alper, 2011), Nepal (Jha & Hui, 2012), Pakistan (Ali et al., 2011), South Africa (Kumbirai & Webb, 2010), Kenya (Ongore & Kusa, 2013), Oman (Tarawneh, 2006), and Palestine (Alkhatib & Harasheh, 2012). However, there is very few studies to consider the consequence of liquidity on ROA of commercial banks in Afghanistan. Prior research has yielded mixed results on the inspiration of liquidity on ROA. Zygmunt (2013) demonstrate the presence of a strong link between liquidity and ROA. Similarly, Alshatti (2015) demonstrates that the quick ratio is related to profitability and the current ratio has a strong association with profitability, although it is a negative relationship. Similarly, Zaid et al. (2014) demonstrate that liquidity has a substantial link with ROA among Malaysian publicly traded construction enterprises. However, Bolek and Wili'nski (2012) discovered that company liquidity had a detrimental impact on business ROA. However, there is a scarcity of research that examines the link between liquidity and ROA in the context of Afghanistan.

3. Methodology

The study is built on quantitative survey research on commercial banks in Afghanistan. The positivist philosophy and a logical technique are applied. The banking network in Afghanistan is not so strong and there are only twelve operating commercial banks. As a result, all twelve banks were used as a sample. This study used panel data from 2016-2020. Data was collected from the annual reports of the relevant banks. Data scrutiny is a cycle that entails studying all of the data and selecting whether data is relevant enough to be utilized to enhance the dynamic. Sivia and Skilling (2006) evaluated the influence of liquidity on corporate banking efficiency using two types of data processing approaches: illustrative vs quantitative. The specific assumptions such as normality, heteroscedasticity, and multicollinearity test are fulfilled, therefore, this study used OLS techniques for estimation.

3.1. Model specification

This study used the following modified model which is also used by Wulaningrum et al. (2022), and Hidayat and Dewi (2023).

$$ROA_{it} = \beta_0 + \beta_1 NWC_{it} + \beta_2 CR_{it} + \mu_{it} \dots \dots \dots (1)$$

Where, the Return on Assets (ROA) (= Net Income/Average Total-Assets) used as proxy for the profitability-ratio and the Current Ratio (CR) (= Current-Assets/Liabilities) and the Net Working-Capital ratio (log) (NWC) (= Current-Assets – liabilities) is used as proxies for the liquidity ratios.

4. Data analysis and discussion

4.1 Summary of Descriptive Statistics

The data and results Table 1 shows that the net working capital ratio has the haggiest mean and return on assets has the lowest means. Similarly, the net working capital ratio has the haggiest variation, while return on assets has the lowest variation. All the variables are positively correlated.

Table 1: Descriptive statistics and correlation

Variables	ROA _{it}	NWC _{it}	CR _{it}
Mean	0.0180	21.1329	1.1030
Std. Dev.	0.0381	1.0801	0.2892
Observations	60	60	60
ROA _{it}	1		
NWC _{it}	0.0116	1	
CR _{it}	0.0515	0.0555	1

4.2. Panel Unit Root test

Table 2 presents the IPS test results which shows that all the variables are stationary at level. Therefore, this study used OLS techniques for estimation.

Table 2: IPS test result

Variables	Statistics	p-value	Order of Integration
ROA _{it}	-5.6061*	0.0000	1(0)
NWC _{it}	-2.0942**	0.0181	1(0)
CR _{it}	-2.2191**	0.0132	1(0)

Note: * & ** indicated the significance level at 1% and 5% respectively.

4.3. Regression results

Table 3 presents the regression results, which shows that the net working capital ratio has an insignificant effect on ROA. While the current ratio has encouraging and noteworthy effect on return on assets in the case of private commercial banks in Afghanistan. A percent upsurge in the current ratio will rise the return on assets by 0.05 percent. The similar results were given by Ali et al. (2019) and Zygmunt (2013) while, opposite results were given by Hidayat and Dewi (2023) and Alshatti (2015). Furthermore, the R-square shows that there 48% variation the dependent variables are explained through independent variables. The remaining 51.76% of the variation is controlled by other variables, which are not the part of this study. Moreover, the F-statistics shows that the overall model is significant. It means there is significant relationship between the dependent and independent variables.

Table 3: OLS results

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.0852	0.1089	-0.7824	0.4384
NWC _{it}	0.0022	0.0049	0.4452	0.6585
CR _{it}	0.0517**	0.0205	2.5140	0.0159
R ²	0.4824	F-statistics	2.3024**	0.0143

Note: * & ** indicated the significance level at 1% and 5% respectively.

5. Discussion

The study results indicated that net working capital ratio has insignificant effect on ROA. Because the firm requires the trade-off between liquidity and profitability that the firm should manage working capital through development of sound techniques. A solid firm's working capital policy guarantees that risks are avoided and value is produced for shareholders (Pandey, 1979). Working capital must be managed as efficiently as possible in order to abandon the company's profitability. Working capital turnover is projected to occur in a very short period of time, resulting in a swift return on investment. The higher the turnover rate of working-capital, accounts receivable, and inventory, the larger the business's sales volume, and this has an effect on corporate earnings (Herison et al., 2022). Working-capital has a significant link with the company's diurnal operational-circumstances since it is applied to satisfy the firm's short-period demands; therefore, working-capital must be managed-appropriately acceptable for the company to run efficaciously (Gultom et al., 2021). While, the CR has encouraging and noteworthy effect on ROA in the case of private commercial banks in Afghanistan. The CR assesses the company's capacity to pay-off its short-period commitments, indicating how far the company's current-assets (CA) can ensure its smooth-debt. The greater the CR, the fewer CA are utilized to pay down current obligations. The overall quantity of assets invested will stimulus the degree of obtained profit (Irman & Purwati, 2020).

This means that when the current ratio rises, so will the ROA, and vice-versa. A high CR recommends that the corporation is more liquid due to its volume to re-pay current-obligations

quickly. If the firm is able to manage its finances well in terms of paying current-liabilities with CA, asset-management in terms of creating profits will also be strong, resulting in high-profits. The similar results were given by Ali et al. (2019) and Zygmunt (2013) while, opposite results were given by Hidayat and Dewi (2023) and Alshatti (2015). According to Hery (2016), the ratio of enterprises with a small-CR suggests that the company has limited-WC to meet its short-period commitments based on the outcomes of computations. In contrast, if the firm has a high-CR, it is not confident that the company is excellent. High current ratios might emerge as a result of poor cash and inventory management. According to Susetyo (2017), the greater the company's current-ratio, the greater the company's-ability to meet all of its operational-needs, particularly in terms of WC, because working-capital is critical in continuing the constancy of company-performance, which affects ROA, the shares of a firm. Companies must still be able to accomplish WC correctly in order to achieve the right balance between CA and liabilities, because a high-CR indicates a share of idle cash.

According to Octavianty and Syahputra (2015), liquidity is a measure of a company's capacity to satisfy its responsibilities to pay all short-period liabilities using the company's CA. Liquidity does not refer to all aspects of a business's finances, but rather to how the firm may convert its CA into cash, which can then be utilized to meet the company's short-period commitments (Tania et al., 2014). The CR is one of the ratios used to assess a company's liquidity. This ratio demonstrates the company's capacity to satisfy its short-period obligations using CA. Liquidity is a characteristic that can impact a company's ability to produce a profit. A high-CR designates that a corporation has a pretty excellent ability to meet its short-period duties, implying that the company has adequate cash or capital to pay these responsibilities. According to Novita and Sofie (2015), the higher the liquidity of a company's CA, the higher the profitability. Which states that the current ratio, as a proxy for liquidity, has an influence. Positively relevant to profitability as proxied by ROA, this indicates that as the current ratio rises, so will the degree of profitability. Moreover, the higher the liquidity level of a company's current-assets, the higher the profitability. Which states that the current ratio, as a proxy for liquidity, has an influence. Positively relevant to profitability as proxied by ROA, this indicates that as the current ratio rises, so will the degree of profitability.

6. Conclusions

This study used data of five years was collected from 12 commercial banks of Afghanistan ranging from year 2016 to 2020 and used OLS techniques for estimation. This study found that the net working capital ratio has insignificant effect on ROA. While the current ratio has encouraging and noteworthy effect on return on assets in the case of private commercial banks in Afghanistan. Therefore, this study concluded that the liquidity has noteworthy effect on ROA in the case of Commercial Banks of Afghanistan. Overall, the liquidity has significant impact on the profitability of banks, but the excessive holding of liquid assets can reduce the profitability. As the liquid assets have no or very little revenue generating capacity, therefore there must be balance in the assets and liability portfolio of banks. This analysis advises that

commercial banks manage their operational risk properly by diversifying their assets into return-generating portfolios, managing their operations, and reducing their leverage-levels. There is also a relevancy of the results for the regulator to device such regulations which ensure the maintenance of appropriate level of liquidity by the banks to meet their obligations timely. The banks should engage competent and qualified personnel for managing the liquidity risk. The proper cost and benefit analysis must be made, while using the aggressive approach for investing the idle cash and avoid the unnecessary risk.

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