

The Effect of Liquidity on the Profitability of Commercial Banks of Afghanistan

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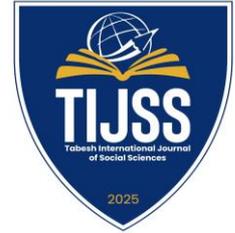
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This study investigates the effect of liquidity on the profitability of commercial banks in Afghanistan, focusing on how liquidity management influences financial performance in a fragile and developing banking environment. The Afghan banking sector operates under conditions of limited capital market development, regulatory constraints, and fluctuating depositor confidence, making effective liquidity management essential for financial stability and sustainable profitability. The study employs a quantitative research design, utilising secondary data from the audited annual reports of six commercial banks for the period 2019–2023. Liquidity is measured using the current ratio and acid-test (quick) ratio, while profitability is represented by return on assets (ROA). Leverage indicators (debt-to-assets and debt-to-equity ratios) and taxation are included as control variables, and multiple regression analysis is applied. The empirical results reveal that the current ratio has a negative and statistically significant impact on profitability, indicating that excessive investment in liquid assets may reduce banks' earning capacity. Conversely, the acid-test ratio exhibits a positive and significant relationship with ROA, suggesting that efficient liquidity management enhances profitability. The findings further show that moderate leverage positively contributes to bank performance, whereas excessive debt does not significantly improve profitability, and taxation is also significantly associated with profitability. Overall, the results support the liquidity–profitability trade-off theory and emphasise the importance of maintaining optimal liquidity levels, contributing to the limited empirical literature on the Afghan banking sector and offering practical insights for bank managers, policymakers, and regulators in emerging and post-conflict economies.

KEYWORDS: Liquidity, Profitability, Commercial Banks, Afghanistan



1. INTRODUCTION

Banks are among the most significant financial institutions contributing to the economic development of any country. A bank can be defined as an organization that mobilizes funds from the public and extends credit facilities to customers while providing financial services such as investment, trade finance, and deposit management. In essence, banks function as intermediaries that transform deposits into productive loans, thereby fostering national growth and development. In the context of Afghanistan, commercial banks play a pivotal role in financial intermediation, capital formation, and post-war economic recovery. However, the Afghan banking sector faces persistent challenges in liquidity management due to limited capital markets, a fragile financial system, and fluctuating depositor confidence. Regulatory frameworks are evolving, yet banks continue to struggle with balancing sufficient liquidity reserves while ensuring adequate profitability. These unique conditions make it essential to examine how liquidity influences profitability within Afghan commercial banks, where maintaining solvency and achieving sustainable returns often represent competing objectives. Liquidity represents one of the most critical aspects of a bank's financial health, as it determines the institution's ability to meet short-term obligations. It involves the timely settlement of debts, withdrawals, and other financial commitments. There exists an inherent trade-off between liquidity and profitability: enhancing profitability often requires sacrificing liquidity, while maintaining high liquidity levels can constrain earnings. According to (Amengor, 2010), liquidity in commercial banks refers to the ability to meet obligations as they mature, including loans, investments, withdrawals, and other accumulated liabilities.

Eljelly (2004) described liquidity as the capacity of a commercial bank to meet its short-term obligations to depositors and creditors upon demand or at maturity. Profitability, on the other hand, is the excess of income over operating expenses. Liquidity and profitability are viewed as two competing forces within banking operations—each exerting pressure in opposite directions. (Olagunju, David, and Samuel, 2012) emphasized that both profitability and liquidity are vital not only to regulators and managers but also to investors, as they determine the financial soundness of banks. Investors seek higher returns on their investments, whereas managers must ensure sufficient liquidity to satisfy depositor withdrawals and operational needs. (Soenen, 1993) further explained that liquidity ratios reflect the relationship between cash and near-cash assets on one hand, and short-term obligations on the other. Near-cash assets typically include receivables and inventories, which directly influence an organization's liquidity position. Thus, operational revenues and asset utilization play a key role in maintaining liquidity efficiency.

Capital structure decisions also influence firm performance, as noted by (Abor, 2005). Organizations must balance debt and equity financing to maximize returns while managing risk exposure. The composition of

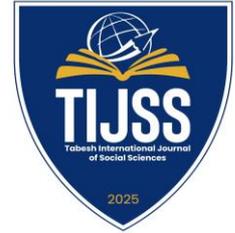
financing sources affects a firm's ability to adapt to changing economic conditions. (Tian and Zeitun, 2007) identified a strong relationship between capital structure and corporate performance, which can be measured using indicators such as return on assets (ROA), return on equity (ROE), and net profit margin (NPM). Financial performance is often assessed through profitability ratios, which provide insight into the efficiency and effectiveness of an organization's operations. (Saghafi & Aghaei, 1994) noted that higher profitability ratios signify superior performance and competitive advantage. These ratios reflect how effectively a bank utilizes its assets to generate returns for shareholders while managing operational costs. Furthermore, taxation and debt obligations are integral to understanding profitability. The structure of liabilities influences financial leverage and, consequently, profitability outcomes. According to (Charm et al, 2012), prudent debt utilization enhances profitability through tax savings, but excessive leverage increases financial risk. Therefore, financial managers must align financing strategies with investment goals to sustain profitability without exposing banks to undue liquidity or solvency risk.

In Afghanistan's banking environment, where the financial sector is still developing and economic uncertainty remains high, maintaining optimal liquidity while ensuring profitability is crucial. Hence, this study aims to analyse the role of liquidity on the profitability of commercial banks in Afghanistan, offering valuable insights for policymakers, bank managers, and financial regulators to enhance the stability and performance of the country's banking sector.

2. Literature Review

2.1 Liquidity

The term liquidity is fundamentally a procedure that is utilized by an organization to convert its resources (current) into money. At whatever point a firm/organization expects to meet its financial commitments, it changes its present resources into money to pay the due liabilities on the due date. As and when the bank expects to pay its momentary commitments to its account holders and loan bosses/providers, it must have a capacity to fulfil its liabilities; for this reason, this capacity is named as "Liquidity" of a bank. This can be characterized in basic words as under: A strategy or methodology which is embraced by a firm or an association or any monetary foundation to convert its resources into money for the installment of close to term commitment irate upon. (Van Horne & Wachowicz, 2008) Portrayed that associations having current resources in smaller amounts will confront issues in proceeding with their procedure; then again, if the quantity of flows resources is too high, this shows that the degree of profitability for the association isn't in a pristine state.



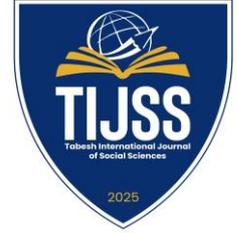
The idea of "liquidity" is used to address the monetary state of the bank. Another creator characterized liquidity as "the capacity to settle commitments with promptness". The administration of liquidity is basic for monetary and non-monetary related firms (Drehmann & Nikolaou, 2013). This is a duty of the bank to pay the budgetary commitments, the money-related commitments contain long-term and momentary obligations, and other monetary costs. Liquidity is a way that is utilized by the bank or banking sector to convert resources into the state of money to make instalment in real money (Diamond & Rajan, 2005).

This is a duty, all things considered, to experience their financial obligations; banks convert their present resources into the state of money to pay the due commitments. The banks having less sum in current resources will confront troubles in progressing their cycles, and if the amount of inflows resources is too high, this shows that the degree of profitability for the bank isn't in the pristine state (Makori and Jagongo, 2013; Van Horne and Wachowicz Jr, 2008).

The liquidity proportion is significant in general associations like banks since banks commonly work through a large number of assets held by savers. Liquidity proportions ascertain a bank's ability to meet the installment obligations by relating the money to the installment obligations. Fluid resources generally include money, attractive protections, sovereign obligation national bank holds (Duijm & Wierds, 2016). This is acceptable if the fluid resources of the banks must be attractive protections on the grounds that attractive protections are simple to convert into the type of money without (Carlin et al., 2013).

The Liquidity hazard the board is an essential factor for hazard management structure in the financial sector and other financial institutions since it influences productivity (Majid and Rais, 2003). An all-around oversight of liquidity checking directs pretty much overseeing choices based on bank liquidity circumstances to maintain a strategic distance from losses (Merrouche & Schanz, 2010).

Anyanwu, (1993), characterized liquidity as the capacity of a firm to convert its resources into money within a brief timeframe and without the loss of significant worth. Liquidity proportion assumes a significant function in each business since banks normally work with huge assets obtained from investors in the form of interest-bearing and time deposits. Olagunju et al., (2012) clarified that liquidity implies the capacity of a bank to meet monetary duties at a reasonable cost consistently. Banks have cash when they have to fulfil the withdrawal needs of their clients. (Lowery et al, 2013), think about how fluid resources should be attractive protections. Liquidity of resources implies that they are relied upon to be changed over to money effectively and pay out the debt. Another nature of fluid resources is value strength. In view of the trademark, bank stores and momentary protections are more fluid than value speculations because of the way that the costs of the former are fixed whereas the costs of transient protections.



Liquidity can be measured with the following ratios for the organization, which show the capability level of the organization to meet its short-term obligations.

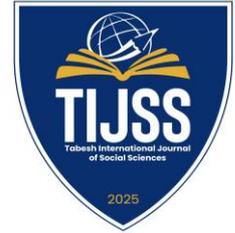
Current ratio = Current assets/ current liabilities

Acid test ratio = Current assets – inventories/ current liabilities

2.2 Profitability

The issue of profitability is an argumentative subject that a bank needs to reliably confront (Heibati et al, 2009), clarified benefit as the distinction between consumptions and returns during a fixed timeframe, regularly contained one year. They contended that a business acts like living, for example, it remains alive and develops. Hence, it is huge that a bank pays for its consistent endurance and development. It is additionally essential that adequate pay be delivered to support the tasks of the association that will lead to additional expansion and development. (Agbada & Osuji, 2013), consider getting ready for corporate benefit as one of the most testing and broad angles performed by bank executives due to the inclusion of various factors in the dynamic cycle, which are commonly not in the control of the bank. They additionally contended that benefit planning can be considerably more complicated if it is done in an exceptionally testing economic climate. It has been depicted by (Tabari et al, 2013), that productivity is estimated by two substitute measures. First is the profit for resources (ROA) as estimated by the proportion of benefits to add up to resources, and the second is return on equity (ROE). It is commonly accepted that return on resources ROA uncovers the limit of the resources of the banks to deliver benefit; however, this gauge can be one-sided due to cockeyed sheet exercises.

Profitability will be taken as the dependent variable for this study. As expressed before, past exploration has indicated that there are various techniques that can be utilized to quantify productivity. The two most basic estimations for productivity have all the earmarks of being ROE (Chaklader & Chawla, 2016; Le and Phan, 2017; Gill et al., 2011; Abor, 2005) and ROA (Barton and Gordon, 1988; Simerly and Li, 2000; Gill et al., 2009; Shah, 2012; Ahmed Sheik and Wang, 2013; Le and Phan, 2017; Nunes et al., 2009). This examination has a viewpoint that mostly features the interests of the directors of the firm. Because of ROA consolidating the profit for the complete capital (Penman, 2013) and not exclusively investors' return, ROA is surveyed to more likely mirror the point of view of this investigation. Moreover, ROA is regularly utilized in past examination and by chiefs and different partners (Bettis, 1981), reinforcing its legitimacy. Hence, ROA will serve as an estimation of benefit for this examination and will, along therefore lines, be the dependent variable utilized in the information analysis. Profit for Assets can be determined utilizing various conditions. This investigation will utilize a typical and notable measure for ROA:



Variables for the measurement of profitability used in the current study are as follows.

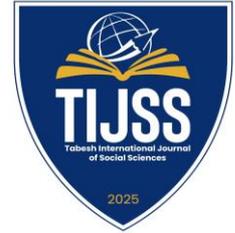
ROA = net income/ total assets

2.3 Relationship between Liquidity and Profitability

Osborne et al., (2009) recommended that more prominent liquidity is typically costly for banks, proposing that more noteworthy liquidity diminishes profit. Nonetheless, as indicated by the compromise hypothesis, the Bank's danger can be diminished because of higher liquidity and in the future the superior required repaying speculators for the expenses of lessening liquidation hazard (Osborne et al., 2012). They additionally contended that during the business cycle, banks' ideal liquidity level changes, normally expanding when expected expenses of misery are required to be higher, the relationship between profit and liquidity is conceivable to be amazingly repeating, demonstrating more certain outcomes through the phases of trouble as banks that attempt to build their liquidity position likewise increase their productivity. Along these lines, there can be a negative or positive connection between liquidity and benefit in the short run, which relies upon the bank's present liquidity position in contrast with its ideal liquidity level.

As per (Flannery & Rangan, 2008) declare that on the off chance that it is feasible for banks to accomplish their ideal liquidity level, at that point surely there won't exist any short-run relationship. As any adjustment in liquidity does not affect productivity. Be that as it may, over the long haul, administrative necessities for liquidity might be an essential. This proposes that a more prominent liquidity position possibly diminishes productivity in the event that if banks are past their ideal liquidity level, for instance, because of administrative necessities forced by administrative specialists or unexpected events. On the side of the above examination, (Osborne et al., 2012) talked that banks' ideal liquidity level rises during periods of trouble in the financial sector.

As the expense of liquidation rises during such periods of misery. (Agbada & Osuji, 2013) explained the connection between liquidity and benefit all the more quickly. They contended that it is safer for banks to keep up high measure of money saved against the stores held by the bank. As this savings account is an inactive cash account, they won't receive any benefit from it. Simultaneously, on the off chance that they adopt the strategy of contributing all to build the benefit, they may confront an illiquidity issue if clients request a lot of money at the same time. It tends to be reasoned that an acceptable broker should need to keep a concordance between these two clashing goals by putting resources into a much broader portfolio blend.

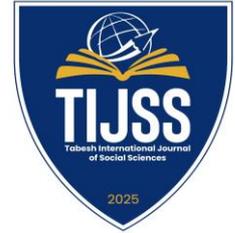


Velnampy et al., (2012) explored the relationship between capital structure and productivity of recorded Sri Lankan banks over the time of a long time from 2002 to 2009. Consequences of their investigation show that there is a negative relationship between capital structure and productivity, aside from the relationship between obligation to value and profit for value. Besides, Velnampy, T. made an examination on added, profitability, and execution of a few chosen organizations in Sri Lanka with the example of 15 financial organizations listed on the Colombo Stock Exchange (CSE). The investigation uncovers that, benefit before charge per representative and the worth added per rupee of fixed resource are emphatically correlated, and the work cost to deals and gross benefit are additionally positively correlated. Further, the work cost to esteem added is related to net benefit and worth added per rupee of fixed resource, and no relationship was found between the remainder of the profitability and execution measures.

Vishnani & Shah (2007) referenced that the most well-known proportion of liquidity is current proportion and return on investment for productivity. A higher current proportion shows a bigger interest in current resources, which implies a low pace of degree of profitability for the firm, as overabundance interest in current resources won't yield enough return. A low current proportion implies more modest interest in current resources, which implies a high pace of degree of profitability for the firm, as no unused speculation is tied up in current resources. In any case, a low current proportion may likewise mean interruption underway and deals because of the regular stockouts and the inability to pay the loan bosses in time because of the prohibitive strategy.

Velnampy et al., (2008) explored the relationship between authoritative development and productivity of Commercial Bank Ltd in Sri Lanka over the time of a long time from 1997 to 2006. They found that deals are decidedly connected with benefit proportions, aside from working benefit, return on value, and number of contributors are contrarily associated with the productivity proportions, aside from working benefit and profit for value. Similarly, the number of advances is likewise contrarily related to the profit for normal investors' reserves. Moreover, (Velnampy et al., 2010) made an examination with respect to the affiliation between firm size and productivity of the relative multitude of parts of Bank of Ceylon and Commercial Bank of Ceylon Ltd over a period of a long time from 1997 to 2006. Discoveries uncover that there is a positive relationship between firm size and productivity in Commercial Bank of Ceylon Ltd, however, there is no connection between firm size and productivity in Bank of Ceylon.

As indicated by (Eljelly, 2004), proficient liquidity the board partners arrange and control current resources furthermore, current liabilities in an effective way to mitigate the risk of non-payment of obligations for present moment necessities and it also avoids excessive interest in these resources. The association between productivity and liquidity was inspected, as dictated by current proportion and money transformation cycle



on an example of joint stock organizations in Saudi Arabia utilizing correlation and relapse investigation. Eljelly focused on that, the money change cycle is the best apparatus to quantify the liquidity contrasted with the current proportion, which influences profit. Other than that, the scientist additionally imagines that the size of the firm also has a critical impact on the productivity at the mechanical level. The outcomes discovered were steady, and it seriously affected the liquidity of the board in different Saudi Arabic organizations. In this way, obviously, there was a negative connection between liquidity and benefit for the Saudi organizations. Moreover, the examination likewise revealed the way that there was an extraordinary variety among the businesses regarding the measure for liquidity.

Velnampy, T. (2006) conducted an investigation on venture evaluation and the productivity of the drink packaging venture in Sri Lanka. He found that the administration of the task neglected to accomplish the budgetary outcomes. Even though, the Net Present Worth (NPV), Internal Rate of Return (IRR), and advantage cost proportion show the undertaking as advantageous. As per (Smith et al., 1997), productivity and liquidity are the notable objectives of working capital for the board. The issue emerges because the amplification of the company's profits could genuinely undermine its liquidity, and the quest for liquidity has an inclination to weaken returns. This bit of work evaluated the relationship among standard and elective working capital measures and the rate of profitability, primarily in the mechanical firms listed on the Johannesburg Stock Exchange. The issue under scrutiny was to determine whether the more recently developed elective working capital ideas indicated improved relationship with the degree of profitability compared to the customary working capital proportions or not. The outcomes confirmed that there was no huge contrast between the years and the selected independent factors. The aftereffects of their stepwise relapse affirmed that the complete current liabilities are separated by reserves stream represented the majority of the fluctuation, consequently on venture.

3. Methodology

3.1 Research Design

The study is based on secondary data, hence it is a qualitative study. It is based on a deductive approach in which the researcher can test the study hypotheses. The study used an exploratory model with the help of positivist research philosophy.

3.2 Population

The targeted population of the study is the banking sector of Afghanistan. More specifically, the banking sector in Afghanistan. Population represents the whole or universe of the study area to which a researcher



sticks to conduct an observation. The total population of the study is 10 banks in Afghanistan. The list of all these banks in Afghanistan is as follows:

Table 3.1 Population of the study

S. No	Bank Name
1	Afghan United Bank
2	Afghanistan International Bank
3	Azizi Bank
4	Bakhtar Bank
5	Bank Millie Afghan
6	Da Afghanistan Bank
7	Ghazanfar Bank
8	Kabul Bank
9	Maiwand Bank
10	Pashtany Bank

3.3 Sample Size

As discussed in the population section that the targeted population is ten (10) banks. So, the study selected six (06) banks as a sample because of the ease of data availability. Because some of the banks have not fulfilled the requirement of data analysis. Hence, the sampling technique is a convenient sampling technique. The sample is 60% of the population, so it can represent the population of the study (Saunders, 2010). A sample of such banks is as follows:

Table 3.2 Sample Size of the study

S. No	Bank Name
1	Afghan United Bank
2	Afghanistan International Bank
3	Azizi Bank
4	Da Afghanistan Bank
5	Ghazanfar Bank
6	Kabul Bank

3.4 Data collection

The study is quantitative in nature. This study used Secondary data, which is already available and processed by anyone. This study aimed to find out the impact of Tax, leverage, and liquidity on profitability. Therefore, related data was collected from annual reports of the respective banks. These reports are published by the bank on an annual basis. The data was collected from 2019-2023 for five (5) years.

3.5 Variables of the Study

This study includes one dependent variable (profitability) and five independent variables, with a primary focus on liquidity indicators, consistent with the study's objective.

3.5.1 Dependent Variable

Profitability serves as the dependent variable and is represented by Return on Assets (ROA), which measures the efficiency of a bank in generating income from its assets.

$$\text{ROA} = (\text{Net Income}) / (\text{Total Assets}) \times 100$$

3.5.2 Independent Variables

i. Current Ratio

Current Ratio shows the ability of a firm's ability to meet its short-term obligations. It can be calculated as follows:

$$\text{Current Ratio} = (\text{Current Assets}) / (\text{Current Liabilities})$$

Current Assets Include:

Cash, Bank, Prepaid Expenses, Inventory, Marketable Securities, Accounts Receivable, Notes Receivable, etc.

Current Liabilities Include:

Accounts Payable, Notes Payable, Outstanding Expenses, Interest and Tax payable, Bank Overdraft, Short-term Loans

ii. Acid Test ratio (Quick ratio)

It is also known as the Quick ratio. It reflects the most liquid assets due to which excludes inventory because it takes time to liquidate by loses its value. Formulation of the Acid Test Ratio is as follows:

$$\text{Acid Test Ratio} = (\text{Current Assets} - \text{Inventory}) / (\text{Current Liabilities})$$

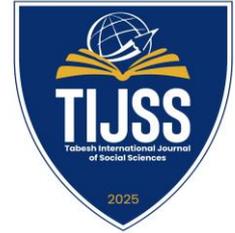
iii. Debt to Total Assets

It shows how much the outsider claim is compared to the total assets. It can be calculated as follows:

$$\text{DTA} = (\text{Total Debt}) / (\text{Total Assets})$$

iv. Debt to Equity

It reflects that how much is the portion of debt towards the total equity. It can be calculated as follows:



DTE= (Total Debt)/ (Total Equity)

v. Taxation

Tax is defined as an obligation/liability paid to the state by an entity. Tax refers to the income tax rate, which is decided by the revenue department of the state.

3.6 Model Specification

To assess the relationship between liquidity and profitability, the study employs a multiple regression model. This model examines how variations in liquidity, leverage, and taxation affect profitability among Afghan commercial banks. The model is expressed as follows:

$$PROF = \beta_0 + \beta_1 LIQ + \beta_2 LEV + \beta_3 TAX + \epsilon$$

Where:

PROF = Profitability (measured by ROA)

LIQ = Liquidity (measured by CR and ATR)

LEV = Leverage (measured by DTA and DTE)

TAX = Taxation (income tax ratio)

ϵ = Error term

Hypothesis 1:

H0: There is no significant relationship between liquidity and profitability of commercial banks in Afghanistan.

H1: There is a significant relationship between liquidity and profitability of commercial banks in Afghanistan.

Hypothesis 2:

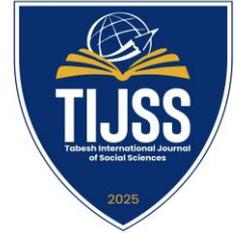
H0: There is no significant relationship between leverage and the profitability of commercial banks in Afghanistan.

H1: There is a significant relationship between leverage and the profitability of commercial banks in Afghanistan.

Hypothesis 3:

H0: There is no significant relationship between taxation and the profitability of commercial banks in Afghanistan.

H1: There is a significant relationship between taxation and the profitability of commercial banks in Afghanistan.



4. Results and Discussion

4.1 Descriptive Statistics

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	30	.0051756	.0134087	-.0458438	.0343542
CR	30	1.665213	.7490913	.782	3.1
ATR	30	.1327653	.2314795	.8861953	2.84794
DTA	30	39.08952	1.12174	30.22259	63.24128
DTE	30	45.33121	.224151	33.65214	67.20126
TAX	30	16.55631	.421198	5.00000	40.00000

(STATA Output)

In Table 4.1 above, it's been noticed that the independent variable that is DTA has the maximum mean value of 23.09, while another independent variable ATR has the lowest value of mean of 0.133. The number of observations in the data is 30 for each variable. ROA maximum value is 0.344, while its minimum value shows a negative value of 0.0458. The Maximum value of the Current Ratio is 3.1, while the lowest value of the current ratio is 0.782. ATR has a minimum value is observed as 0.88. The maximum value of ATR is 2.847. Standard deviation is used to measure the extent of a scattered data set. The low estimated standard deviation explains that the data points in the data set have a tendency to be near the mean value. Alternatively, the highest value of standard deviation explains that the data points in the data sets are widely spread to give the internal touches to the quality of the scope extensively. Similarly, the independent variable ATR has a standard deviation of 0.23, which is the lowest value that clearly indicating that the data point in the CR has a tendency to be closer to their mean. Furthermore, the Independent variable DTA got the highest standard deviation value of 1.12. This value is high compared to the variables that are in the data set, which means that the data points in DTA have the values spread over a wide variety of ranges.

4.2 Variance Inflation Factor

Table 4.2 Variance Inflation Factor (For Multicollinearity)

Variable	VIF	1/VIF
CR	1.24	0.806571
ATR	1.18	0.850400
DTA	1.17	0.851131
DTE	2.21	0.452488
TAX	1.62	0.617283
Mean VIF	1.20	

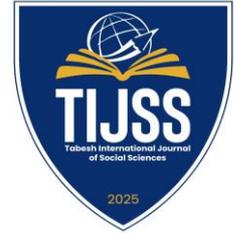
(STATA Output)

The value of VIF for the Current ratio is 1.24 times, and for ATR, it is also 1.18 times; however, DTA has a VIF of 1.17. DTE has a higher value than other, i.e., 2.21, while TAX has a VIF of 1.62; hence, all the values are less than 10 times, which shows that there is no problem of multicollinearity in the data set.

4.3 Correlation Analysis

Table 4.3 Correlation Matrix

	ROA	CR	ATR	DTA	DTE	TAX
ROA	1.0000					
CR	0.2242*	1.0000				
ATR	-0.0644*	0.2822*	1.0000			
DTA	0.4891*	0.2836	-0.1722*	1.0000		
DTE	0.5601	0.1411	0.1148	0.3521	1.0000	
TAX	0.3321	0.2214	0.1847	0.2744	0.3109	1.0000



The correlation table shows the degree of Association among all variables irrespective of the dependent and independent variables. It means that it doesn't consider the dependent variable in correlation, or variables are considered as independent. The result shows that the Current ratio has a positive Association with ROA. The degree of Association is 22.42% which is highly significant at the 0.05 level. The result also shows that ATR has a significant Association with ROA. The degree of Association is inverse in terms, and the magnitude is 0.06%. If you talk about the DTA and apply for performance, so it is observed that is 48.91% degree of Association was found, this result is also significant at a 0.05 significance level because the p-value is 0.000. CR has a positive association with ATR of 28.22% this finding is also significant. However, CR has a positive association with DTA, which is about 28.36%.

4.4 Regression analysis

Table 4.4 Regression Analysis

ROA	Coef.	Std. Err.	z	P> z
CR	-0.942	0.231	-4.080	0.000
ATR	1.004	0.014	72.210	0.000
DTA	.00549	.002	2.49	0.013
DTE	0.0210	.033	.6363	.215
TAX	.4152	.103	4.718	0.000
_cons	-0.440	0.088	-5.010	0.000

$R^2 = 0.5614$ | F-Stats = 150.21 (P-Value= 0.0000)

The above table shows that there are 30 observations in the data. The total number of groups in the data set was 6, and each group had 5 observations. The overall R-squared is 0.5614, which suggests that there is are 56% variation in the dependent variable (return on assets) due to changes in the independent variables, i.e., current ratio, ATR, and debt to assets. It also showed that the Included variables have 55% contribution towards the Dependent variable. If we talk about the overall significance of the model, it was found that the overall model is significant because the value of F-statistic is 150.21, and its p-value is 0.000.

If we talk about the individual variable current ratio, ATR, and debt to assets, all are highly significant because the P value is less than 0.05. The magnitude of the current ratio is negative towards return on assets, which suggests that the higher the current ratio, to lower the Return on Assets. So, it's a good sign for the firm to have a normal Current ratio. ATR has a positive impact on Performance, while debt to assets also has a positive relation with profitability. The magnitude of ATR is higher than other variables. Its value is 1.004, which reflects that it will bring 1.004 units of change in the dependent variable if there is 1 unit change in ATR. The current ratio has an inverse magnitude, while the debt to assets has a positive but very low magnitude towards returns on assets.

4.5 Discussion of Findings

The findings confirm the existence of a strong relationship between liquidity and profitability, consistent with the study's main objective. The negative coefficient of the current ratio supports prior studies such as Eljelly (2004) and Olagunju et al. (2012), who also found an inverse relationship between liquidity and profitability in banking sectors of emerging economies. Conversely, the positive impact of the acid-test ratio aligns with Maqsood et al. (2016) and Ahmad (2016), suggesting that efficient liquidity levels improve profitability.

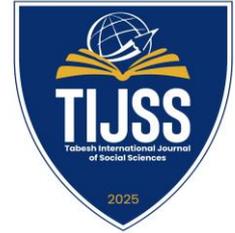
Furthermore, the results validate the trade-off theory, which posits that maintaining higher liquidity ensures solvency but reduces earnings potential. In the Afghan context, this relationship is particularly relevant, given the volatility and liquidity risks facing the financial sector.

The study also reveals that moderate leverage (DTA) positively contributes to profitability, while excessive debt (DTE) does not, aligning with Abor (2005) and Tian & Zeitun (2007). The significance of the taxation variable suggests that tax policies in Afghanistan are linked to financial performance, as profitable institutions contribute more to government revenues.

In summary, the regression results strongly support the conclusion that liquidity management is a key determinant of profitability in Afghan commercial banks, and that balancing liquidity and profitability is essential for financial stability and sustainable performance.

5. Conclusions

The aim of the study is to investigate the relationship between liquidity & profitability of commercial banks in Afghanistan. The study used a deductive approach and a positivism research philosophy. Secondary data was collected from the annual reports of selected banks. According to the State Bank of Afghanistan, there are 10 banks working. The study selects five commercial banks as a sample. Current ratio, acid test ratio,



debt to assets, debt to equity and tax were elected as independent variables. return on asset was selected as the dependent variable. Results of the study showed that the current ratio has an inverse impact on return on assets which shows that if the current ratio is increased, it will decrease the profitability. The current ratio has an inverse magnitude of 0.942. ATR also has a bet on profitability; however, Earth's magnitude is 1.004. This shows that a change of 1 unit in ATR will bring approximately a similar change and profitability. DTA is also found to be highly significant towards profitability. A study shows that there is an overall impact of liquidity on firm profitability.

6. Recommendations

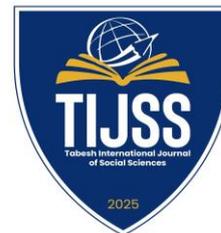
1. Banks should maintain an optimal level of liquidity rather than accumulating excessive current assets.
2. Financial managers should monitor both current and quick ratios regularly to ensure operational efficiency.
3. Regulatory authorities should provide guidelines that encourage efficient liquidity management.
4. Future research may explore macroeconomic variables or cross-country comparisons to deepen the understanding of liquidity–profitability dynamics.

Conflict of Interest:

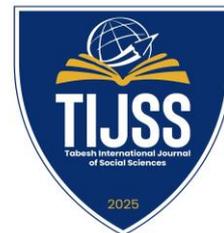
All authors declare no conflict of interest in any part of the research.

REFERENCES

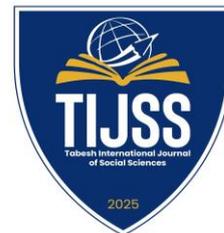
- Ahmad, R. (2016). A study of relationship between liquidity and profitability of Standard Chartered Bank Pakistan: Analysis of financial statement approach. *Global Journal of Management and Business Research*, 16(1), 77–85.*
- Akinkunmi, M. A. (2017). Empirical investigation of external debt-growth nexus in Sub-Saharan Africa. *African Research Review*, 11(3), 142–152.*
- Akomolafe, K. J., Danladi, J. D., Babalola, O., & Abah, A. G. (2015). Monetary policy and commercial banks' performance in Nigeria. *Public Policy and Administration Research*, 5(9), 158–166.*
- Ali, R. K., & Ali, M. (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*, 1(1), 1–8.*



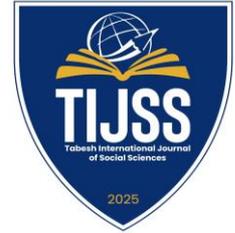
- Almajali, A. Y., Alamro, S. A., & Al-Soub, Y. Z. (2012). Factors affecting the financial performance of Jordanian insurance companies listed at Amman Stock Exchange. *Journal of Management Research*, 4(2), 266–275.*
- Al-Matari, E. M., Al-Swidi, A. K., & Fadzil, F. H. B. (2014). The measurements of firm performance's dimensions. *Asian Journal of Finance & Accounting*, 6(1), 24–49.*
- Alshatti, A. S. (2015). The effect of credit risk management on financial performance of the Jordanian commercial banks. *Investment Management and Financial Innovations*, 12(1), 338–345.*
- Anbar, A., & Alper, D. (2011). Bank-specific and macroeconomic determinants of commercial bank profitability: Empirical evidence from Turkey. *Business and Economics Research Journal*, 2(2), 139–152.*
- Aremu, M. A., Ekpo, I. C., Mustapha, A. M., & Adedoyin, S. I. (2013). Determinants of capital structure in Nigerian banking sector. *International Journal of Academic Research in Economics and Management Sciences*, 2(4), 27–58.*
- Athanasoglou, B., & Brissimis, S. N. (2005). Bank-specific, industry-specific and macroeconomic determinants of bank profitability. *Bank of Greece Economic Bulletin*, 2(5), 134–145.*
- Athanasoglou, P., Delis, M., & Staikouras, C. (2006). Determinants of bank profitability in the South Eastern European region. *Journal of Financial Stability*, 2(6), 276–285.*
- Bartholdy, J., Boyle, G., & Stover, R. D. (1997). Corporate capital structure and regulation of bank equity holdings: Some international evidence. *Journal of Banking & Finance*, 21(5), 687–700.*
- Beckmann, R. (2007). Profitability of Western European banking systems: Panel evidence on structural and cyclical determinants. *Deutsche Bundesbank Discussion Paper*, 8(3), 957–974.*
- Ben Naceur, S., & Goaid, M. (2008). The determinants of commercial bank interest margin and profitability: Evidence from Tunisia. *Frontiers in Finance and Economics*, 6(5), 763–802.*
- Berman, K., Knight, J., & Case, J. (2013). *Financial intelligence: A manager's guide to knowing what the numbers really mean* (2nd ed.). Business Literacy Institute.
- Birindelli, G., Ferretti, P., Intonti, M., & Iannuzzi, A. P. (2015). On the drivers of corporate social responsibility in banks: Evidence from an ethical rating model. *Journal of Management & Governance*, 19(2), 303–340.*
- Boahene, S. H., Dasah, J., & Agyei, S. K. (2012). Credit risk and profitability of selected banks in Ghana. *Research Journal of Finance and Accounting*, 3(7), 6–14.*
- Bodie, Z., Merton, R. C., & Cleeton, D. L. (2009). *Financial economics* (2nd ed.). Pearson Prentice Hall.
- Bourke, P. (1989). Concentration and other determinants of bank profitability in Europe. *Journal of Banking & Finance*, 13(1), 65–79.*



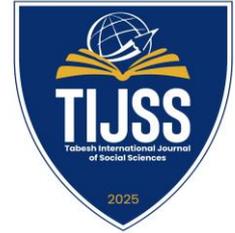
- Brealey, R., Myers, S., Sick, G., & Giammarino, R. (1992). *Principles of corporate finance* (2nd Canadian ed.). McGraw-Hill Ryerson.
- Brechling, F., & Clayton, G. (1965). Commercial banks' portfolio behaviour. *The Economic Journal*, 75(298), 290–316.* <https://doi.org/10.2307/2229371>
- Brinson, G. P., Singer, B. D., & Beebower, G. L. (1991). Determinants of portfolio performance II: An update. *Financial Analysts Journal*, 47(3), 40–48.* <https://doi.org/10.2469/faj.v47.n3.40>
- Brockway, G. P. (1989). Growlery: Ask not for whom the junk bond fails. *Challenge*, 32(3), 48–50.*
- Busch, T., Christensen, B. J., & Nielsen, M. Ø. (2011). The role of implied volatility in forecasting future realized volatility and jumps in foreign exchange, stock, and bond markets. *Journal of Econometrics*, 160(1), 48–57.* <https://doi.org/10.1016/j.jeconom.2010.03.015>
- Carlin, B. I., Kogan, S., & Lowery, R. (2013). Trading complex assets. *The Journal of Finance*, 68(5), 1937–1960.* <https://doi.org/10.1111/jofi.12073>
- Chandra, P. (2001). *Financial management: Theory and practice*. Tata McGraw-Hill Publishing.
- Chandra, R., Dagum, L., Kohr, D., Menon, R., Maydan, D., & McDonald, J. (2001). *Parallel programming in OpenMP*. Morgan Kaufmann.
- Cornett, M. M., Marcuss, J., Saunders, A., & Tehranian, H. (2006). Earnings management, corporate governance, and true financial performance. *Journal of Banking & Finance*, 30(4), 112–118.*
- Cox, J. C., & Ross, S. A. (1976). A survey of some new results in financial option pricing theory. *The Journal of Finance*, 31(2), 383–402.*
- Davies, J. C. (1962). Toward a theory of revolution. *American Sociological Review*, 27(1), 5–19.*
- Diamond, D. W., & Rajan, R. G. (2005). Liquidity shortages and banking crises. *The Journal of Finance*, 60(2), 615–647.*
- Drehmann, M., & Nikolaou, K. (2013). Funding liquidity risk: Definition and measurement. *Journal of Banking & Finance*, 37(7), 2173–2182.*
- Duijm, P., & Wierst, P. (2016). The effects of liquidity regulation on bank assets and liabilities. *International Journal of Central Banking*, 12(2), 385–411.*
- Eljelly, A. M. (2004). Liquidity–profitability trade-off: An empirical investigation in an emerging market. *International Journal of Commerce and Management*, 14(2), 48–61.*
- Eskandari, J. (2007). *Accounting principles: Short-run and long-run reactions*. Tehran Sazeman Publications.
- Fisher, I. (1933). The debt-deflation theory of great depressions. *Econometrica*, 1(4), 337–357.*
- Flamini, V., Schumacher, M. L., & McDonald, M. C. A. (2009). *The determinants of commercial bank profitability in Sub-Saharan Africa* (IMF Working Paper No. 09/15). International Monetary Fund.



- Foucault, M., Davidson, A. I., & Burchell, G. (2008). *The birth of biopolitics: Lectures at the Collège de France, 1978–1979*. Palgrave Macmillan.
- Gakure, R. W., Ngugi, J. K., Ndwiga, P. M., & Waithaka, S. M. (2012). Effect of credit risk management techniques on the performance of unsecured bank loans employed by commercial banks in Kenya. *International Journal of Business and Social Research*, 2(4), 221–236.*
- Georgita, C., Albu, F., David, V., & Medvedovici, A. (2007). Simultaneous assay of metformin and glibenclamide in human plasma based on extraction-less sample preparation procedure and LC/(APCI)MS. *Journal of Chromatography B*, 854(1–2), 211–218.*
- Goddard, J., Molyneux, P., & Wilson, J. O. S. (2004). Dynamics of growth and profitability in banking. *Journal of Money, Credit and Banking*, 36(6), 1069–1090.*
- Gompers, P., & Lerner, J. (1998). Venture capital distributions: Short-run and long-run reactions. *The Journal of Finance*, 53(6), 2161–2183.*
- Gounder, N., & Sharma, P. (2012). Determinants of bank net interest margins in Fiji, a small island developing state. *Applied Financial Economics*, 22(19), 1647–1654.*
- Gul, S., Irshad, F., & Zaman, K. (2011). Factors affecting bank profitability in Pakistan. *Romanian Economic Journal*, 14(39), 19–78.*
- Haidary, Q., & Abbey, B. (2018). Financial performance of commercial banks in Afghanistan. *International Journal of Economics and Financial Issues*, 8(1), 242–249.*
- Hakim, S., & Neaime, S. (2001). Performance and credit risk in banking: A comparative study for Egypt and Lebanon. *Economic Research Forum for the Arab Countries, Iran & Turkey*, 18(6), 921–930.*
- Hanson, J. A., & de Rezende Rocha, R. (1986). *High interest rates, spreads, and the costs of intermediation: Two studies* (Vol. 18). World Bank.
- Hosna, A., Manzura, B., & Juanjuan, S. (2009). Credit risk management and profitability in commercial banks in Sweden. *Australian Journal of Business and Management Research*, 2(2), 31–46.*
- Hossain, A. A., & Chowdhury, A. (1998). Open-economy macroeconomics for developing countries. *Romanian Economic Journal*, 8(6), 75–88.*
- Humpe, A., & Macmillan, P. (2009). Can macroeconomic variables explain long-term stock market movements? *Applied Financial Economics*, 19(2), 111–119.*
- Jahan, N., & Nayeem, M. A. (2014). The impact of liquidity on profitability in the banking sector of Bangladesh. *International Journal of Economics and Business Review*, 2(10), 17–25.*
- Jamali, A. H., & Asadi, A. (2012). Management efficiency and profitability in Indian automobile industry: From theory to practice. *Indian Journal of Science and Technology*, 5(5), 2779–2781.*



- Jin, C., Sehrish, S., Liao, W. K., Choudhary, A., & Schuchardt, K. (2011, September). Improving the average response time in collective I/O. In *European MPI Users' Group Meeting* (pp. 71–80). Springer.
- Kithinji, A. M. (2010). Credit risk management and profitability of commercial banks in Kenya. *Australian Journal of Business and Management Research*, 2(1), 254–262.*
- Kolapo, T. F., Ayeni, R. K., & Oke, M. O. (2012). Credit risk and commercial banks' performance in Nigeria: A panel model approach. *Australian Journal of Business and Management Research*, 2(2), 31–58.*
- Kwon, C. S., & Shin, T. S. (1999). Cointegration and causality between macroeconomic variables and stock market returns. *Global Finance Journal*, 10(1), 71–81.*
- Kyule, J. (2015). Impact of liquidity and solvency on financial performance of firms listed at the Nairobi Securities Exchange. *Unpublished MSc Finance Project, University of Nairobi*.
- Lazaridis, I., & Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies in the Athens Stock Exchange. *Journal of Financial Management & Analysis*, 19(1), 26–35.*
- Madura, J., & Zarruk, E. R. (1995). Bank exposure to interest rate risk: A global perspective. *Journal of Financial Research*, 18(1), 1–13.*
- Maqsood, T., Akmal, M., Raza, A., Ijaz, M., & Shouqat, U. (2016). Impact of liquidity management on profitability in the banking sector of Pakistan. *International Review of Management and Business Research*, 5(2), 775–785.*
- Marimuthu, M. (2008). Ethnic diversity on boards of directors and its implications on firm financial performance. *Journal of International Social Research*, 1(4), 245–273.*
- Merrouche, O., & Schanz, J. (2010). Banks' intraday liquidity management during operational outages. *Journal of Banking & Finance*, 34(2), 314–323.*
- Miller, S. M., & Noulas, A. G. (1997). Portfolio mix and large-bank profitability in the USA. *Applied Economics*, 29(4), 505–512.*
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance, and the theory of investment. *The American Economic Review*, 48(3), 261–297.*
- Mohammed, A., & Simon, W. (2008). The impact of monetary policy on banks' credit in Ghana. *AERC Paper TI-I, Nairobi, Kenya*.
- Molyneux, P., & Thornton, J. (1992). Determinants of European bank profitability: A note. *Journal of Banking & Finance*, 16(6), 1173–1178.*
- Muranaga, J., & Ohsawa, M. (1997). *Measurement of liquidity risk in the context of market risk calculation*. Bank of Japan.



- Nabeel, M., & Muhammad, S. H. (2017). Liquidity management and its impact on banks' profitability: A perspective of Pakistan. *International Journal of Business and Management Invention*, 6(1), 1–10.*
- Niresh, J. A. (2012). Trade-off between liquidity and profitability: A study of selected manufacturing firms in Sri Lanka. *Journal of Arts, Science & Commerce*, 3(4[2]), 34–40.*
- Olagunji, A., Adeyanju, A. O. D., & Olabode, O. S. (2011). Liquidity management and commercial banks' profitability in Nigeria. *Research Journal of Finance and Accounting*, 2(7–8), 69–82.*
- Osiegu, P. I., & Nwakanma, C. (2008). *Financial management*. Harey Publications.
- Oxford University Press. (2005). *Oxford dictionary of accounting* (3rd ed.). Oxford University Press.
- Richard, B. (2013). Valuation in bankruptcy and a financial restructuring context. *Canadian Institute of Chartered Business Valuators*, 3(13), 1–20.*
- Sritharan, V. (2015). Does firm size influence a firm's profitability? *Research Journal of Finance and Accounting*, 6(6), 201–207.*
- Staikouras, C. K., & Wood, G. E. (2004). The determinants of European bank profitability. *International Business & Economics Research Journal*, 3(6), 57–68.*
- Stolowy, H., & Lebas, J. M. (2006). *Financial accounting and reporting: A global perspective*. Cengage Learning EMEA.
- Sufian, F., & Chong, R. R. (2008). Determinants of bank profitability in a developing economy: Empirical evidence from the Philippines. *Asian Academy of Management Journal of Accounting and Finance*, 4(2), 47–89.*
- Vallelado, E., & Saona, P. (2011). An integrated model of capital structure to study the differences in the speed of adjustment to target corporate debt maturity among developed countries. *International Journal of Banking, Accounting and Finance*, 3(4), 258–293.*
- Van Gestel, T., & Baensens, B. (2009). *Credit risk management: Basic concepts*. Oxford University Press.
- Van Horne, J. C., & Wachowicz, J. M., Jr. (2008). *Fundamentals of financial management*. Pearson Education Limited.
- Vong, P. I., & Chan, H. S. (2009). Determinants of bank profitability in Macao. *Macau Monetary Research Bulletin*, 12(6), 93–113.*
- Wambu, T. M. (2013). The relationship between profitability and liquidity of commercial banks in Kenya. *Unpublished MSc Thesis, University of Nairobi*.
- Weston, J., & Brigham, E. F. (2000). The cost of capital, corporation finance, and the theory of investment. In *Managerial finance* (Vol. 16, No. 6, pp. 20–21).