

# The Impact of Liquidity Management on Profitability

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**Abstract:** This work investigated the impact of liquidity management on the profitability of banks, through the analysis of a range of research and studies related around the world. the results were varied, where were some result of them positive and the other was negative. The study, therefore, recommends that banks should engage competent and qualified personnel in order to ensure that right decision are adopted especially with the optimal level of liquidity and still maximize profit.

**Keywords:** liquidity, liquidity management, theories of liquidity management, profitability, theories of profitability, the impact of liquidity management on profitability.

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## I. INTRODUCTION

Liquidity administration is an idea that is accepting genuine consideration everywhere throughout the world, particularly with the current money related circumstances and the condition of the world economy. A portion of the striking corporate objectives, incorporates the need to augment benefit, keep up an abnormal state of liquidity to ensure security, accomplish the largest amount of proprietor's total assets combined with the fulfilment of other corporate targets. The significance of the liquidity administrator as it influences corporate benefit in today's business can't be overemphasized. The urgent part in overseeing working capital has required the upkeep of its liquidity in everyday operation to guarantee its smooth running and meets its commitment. Liquidity assumes a huge part in the effective working of a business firm.

A firm should ensure that it does not experience the ill effects of the absence of or overabundance liquidity to meet its short-term compulsions. An investigation of liquidity is of real significance to both the inside and the outside examination due to its cozy association with the everyday operations of a business. The issue in liquidity management is to achieve the desired trade-off between liquidity and profitability [1]. This study seeks an addition to other things, to investigate the problems of liquidity management in order to determine its effect on profitability.

## II. LIQUIDITY

Investopedia.com (2016) describes Liquidity as the degree to which an asset or security can be quickly bought or sold in the market without affecting the asset's price. Also, Liquidity is generally defined as the ability of a financial firm to meet its debt obligations without incurring unacceptably large losses [2].

### A. Breaking Down 'Liquidity'

Cash is considered the standard for liquidity because it can most quickly and easily be converted into other assets. If a person wants a \$1,000 refrigerator, cash is the asset that can most easily be used to obtain it. If that person has no cash, but a rare book collection that has been appraised at \$1,000, they are unlikely to find someone willing to trade them the refrigerator for their collection. Instead, they will have to sell the collection and use the cash to purchase the refrigerator. That may be fine if the person can wait months or years to make the purchase, but it could present a problem if the person only had a few days. They may have to sell the books at a discount, instead of waiting for a buyer who was willing to pay the full value. Rare books are therefore an illiquid asset [3].

### B. Market Liquidity

According to Ernst et al. [4] Market liquidity is the ability of a market participant to execute a trade or liquidate a position with little or no cost, risk or inconvenience. In the example given above, the market for refrigerators in exchange for rare

books is so illiquid that, for all intents and purposes, it does not exist. The stock market, on the other hand, is characterized by higher market liquidity. If an exchange has a high volume of trade that is not dominated by selling, the price a buyer offers per share (the bid price) and the price the seller is willing to accept (the ask price) will be fairly close to each other. Investors, then, will not have to give up unrealized gains for a quick sale. When the spread between the bid and ask prices grows, the market becomes more illiquid. Markets for real estate are pretty much inherently less liquid than stock markets. Even by the standard of real estate markets, however, a buyer's market is relatively illiquid, since buyers can demand steep discounts from sellers who want to offload their properties quickly [3].

### **C. Liquidity Management**

According to Investopedia [3] in finance, liquidity management takes one of two forms based on the definition of liquidity. One type of liquidity refers to the ability to trade an asset, such as a stock or bond, at its current price. The other definition of liquidity applies to large organizations, such as financial institutions. Banks are often evaluated on their liquidity, or their ability to meet cash and collateral obligations without incurring substantial losses. In either case, liquidity management describes the effort of investors or managers to reduce liquidity risk exposure.

- **Liquidity Management in Business:**

Investors, lenders and managers all look to a company's financial statements, using liquidity measurement ratios to evaluate liquidity risk. This is usually done by comparing liquid assets and short-term liabilities. Companies that are over-leveraged must take steps to reduce the gap between their cash on hand and their debt obligations. All companies and governments that have debt obligations face liquidity risk, but the liquidity of major banks is especially scrutinized. These organizations are subjected to heavy regulation and stress tests to assess their liquidity management because they are considered economically vital institutions. Here, liquidity risk management uses accounting techniques to assess the need for cash or collateral to meet financial obligations [5].

- **Liquidity Management in Investing:**

Investors still use liquidity ratios to evaluate the value of a company's stocks or bonds, but they also care about a different kind of liquidity management. Those who trade assets on the stock market can't just buy or sell any asset at any time; the buyers need a seller, and the sellers need a buyer. When a buyer cannot find a seller at the current price, he or she must usually raise his or her bid to entice someone to part with the asset. The opposite is true for sellers, who must reduce their ask prices to entice buyers. Assets that cannot be exchanged at a current price are considered illiquid. Investors and traders manage liquidity risk by not leaving too much of their portfolios in illiquid markets. In general, high-volume traders in particular want liquid markets, such as the forex currency market [5].

### **D. Theories of Liquidity Management**

There are several liquidity management theories, as follows:

- **Anticipated Income Theory:**

According to these theory bankers again began to look at their loan portfolio as a source of liquidity. The anticipated income theory encouraged bankers to treat long-term loans as potential sources of liquidity. How can a banker consider a mortgage loan as a source of liquidity when, typically, it has such a long maturity? Using the anticipated income theory, these loans are typically paid off by the borrower in a series of instalments. Viewed in this way, the bank's loan portfolio provides the bank with continuous flow of funds that adds to the bank's liquidity. Moreover, even though the loans are long term, in a liquidity crisis the bank can sell the loans to obtain needed cash in secondary markets [6].

- **Shiftability Theory:**

Shiftability is an approach to keep banks liquid by supporting the shifting of assets. When a bank is short of ready money, it is able to sell its assets to a more liquid bank. The approach lets the system of banks run more efficiently: with fewer reserves or investing in long-term assets. Under shift ability, the banking system tries to avoid liquidity crises by enabling banks to always sell or repo at good prices [7].

- **Liability Management Theory:**

This theory states that there is no need to follow old liquidity norms like maintaining liquid assets, liquid investments etc., banks have focused on liabilities side of the balance sheet. According to this theory, banks can satisfy liquidity needs by

borrowing in the money and capital markets. The fundamental contribution of this theory was to consider both sides of a bank's balance sheet as sources of liquidity [8].

- **Commercial Loan Theory:**

This theory states that the liquidity of the commercial bank achieved automatically through self-liquidation of the loan, which being granted for short periods and to finance the working capital, where borrowers refund the borrowed funds after completion of their trade cycles successfully. According to this theory, the banks do not lend money for the purposes of purchasing real estate or consumer goods or for investing in stocks and bonds, due to the length of the expected payback period of these investments, where this theory is proper for traders who need to finance their specific trading transactions and for short periods [8].

**E. Liquidity Measurement**

Liquidity is a measure of the ability and ease with which assets can be converted to cash. Liquid assets are those that can be converted to cash quickly if needed to meet financial obligations; examples of liquid assets generally include cash, central bank reserves, and government debt. To remain viable, a financial institution must have enough liquid assets to meet its near-term obligations, such as withdrawals by depositors. The main measures of liquidity current ratio, capital ratio, cash ratio, quick ratio, investment ratio.

### III. PROFITABILITY

Profitability is the ability to make profit from all the business activities of an organization, company, firm, or an enterprise. It measures management efficiency in the use of organizational resources in adding value to the business. profitability may be regarded as a relative term measurable in terms of profit and its relation with other elements that can directly influence the profit. Profitability is the relationship of income to some balance sheet measure which indicates the relative ability to earn income on assets. Irrespective of the fact that profitability is an important aspect of business, it may be faced with some weakness such window dressing of the financial transactions and the use of different accounting principles [5].

**A. The Concept of Banks Profitability**

Bank profitability is the ability of a bank to generate revenue in excess of cost, in relation to the bank's capital base. A sound and profitable banking sector is better able to withstand negative shocks and contribute to the stability of the financial system [9].

**B. Assessment the Bank's Profitability**

In order to determine the extent of the bankability to make profits from its invested money, there are different financial ratios related to both the owners and depositors. The following two ratios are the most important earnings ratios used in assessing the bank profitability:

**1) Return on assets (ROA)**, This ratio measures the efficiency of a firm at generating profits from each unit of shareholder equity, also known as net assets or assets minus liabilities. ROA shows how well a company uses investments to generate earnings growth [10].

**2) Return on Equity (ROE)**, This ratio measures the efficiency of a firm at generating profits from each unit of shareholder equity, also known as net assets or assets minus liabilities. ROE shows how well a company uses investments to generate earnings growth [11].

**C. Theories of Profitability**

Theories are analytical tools for understanding, explaining, and making predictions about a given subject matter. There are various theories with regard to Liquidity management and profitability:

- **Clark Theory of Profitability:**

Clark begins his theory with an analysis of a profit-less economy and taking into account its key futures. The profit less economy is compared with a profit-generating economies and significant differences were identified to indicate the causes of profit. This method was adopted by Schumpeter and Knight. The profit-less economy is referring to as 'static state', in which all factors are constant and not subject to change, the market is assumed to be perfect; hence the absence of

monopoly and entrepreneurial efforts are rewarded according to management wage levels. There is perfect mobility and flow of all economic units in a frictionless environment; in short, all impediments to perfect competition are dissolved.

“The society acts and lives but does so in a changeless manner” [12]. Any change in these factors will produce a tremor in the system but the economy will adjust and settle at new equilibriums. So, changes in population and capital will result in corresponding fluctuations in wages and interest rates, the economy will absorb these changes and then settle back to a static state. Similarly, changes in techniques of production will affect output and prices; adoption of the same techniques by other producers will cause a shift in the equilibrium, but once these become ubiquitous the equilibrium will resume. The ability of the economy to endure such changes is due to the competitive equilibrium dynamics of the free market. Competition, remarks Knight, has the “tendency to eliminate profit or loss and bring the value of economic goods to equality with their cost” (Knight, 1921). Real economies as noted by Clark will, however, not buffer such changes instantaneously as there will necessarily be a time lag. It is into this frictional delay that the entrepreneur seeks to enter and make his profit before equilibrium returns and consumes his profit. Profit is hence a transitional phenomenon: “untransformed increments of wages and interest” [12], its temporary nature demands from the entrepreneur a dynamic endeavor to seek out or generate opportunities on which he can capitalize. This process is summed up in Clark’s statement that “dynamic forces, then, account today for the existence of an income that static forces will begin to dispose of tomorrow”. [12]. Economies are, however, in constant change, the five variables mentioned by Clark are never static; population and capital are in constant growth, innovation in production and management of resources are continually researched and consumer demands are subject to ever-changing fashions and trends. The entrepreneur thus finds permanence for as long as he can keep ahead of the changes, react before competitors and organize his efforts with sound knowledge of the market. Clark’s analysis determines that the essential cause of profit is change. These changes yield a surplus in the market prior to equilibrium and they are the sought-after profits of the entrepreneur.

- ***Schumpeter Theory of Profitability:***

Following on the method of Clark, Schumpeter developed the ‘circular flow model’ in which a profit-less economy is described where perfect competition extinguishes surpluses of monopoly and friction. The analyses of the ‘circular flow’ economy differ in detail from the ‘static state’ model of Clark. So, departures between an ideally competitive environment and actual economies yield the causes of profit. Schumpeter, however, is far more selective in his approach than Clark. Schumpeter identifies the single notion of innovation as paramount, so that changes based upon innovation are the cause of profit. Gradual changes in population and capital would easily be anticipated by the market and hence present no opportunity for the entrepreneur. Schumpeter goes on to describe five areas in which innovation will lead to profit generation [12]:

- (i) Innovations in commodities, either by introducing new products or improving old ones;
- (ii) Innovations in production techniques;
- (iii) Finding new and fertile markets;
- (iv) Locating new resources and raw materials;
- (v) Changes in industrial organization.

The entrepreneur is for Schumpeter an innovator, who by virtue of his innovation is able to break from the competition, acquire a transitory monopoly in which he can accrue profits until his competitors catch up, but, before they do so, he is able to move on to further innovation in new fields. Schumpeter did not see the entrepreneur’s reward as a surplus value but rather as a functional reward linked to his innovative ability [12]. The impact of innovation was huge, leading to gales of creative destruction as innovations caused old inventories, ideas, technologies, skills, and equipment to become obsolete. Schumpeter saw the model of perfect competition in which different companies sold similar goods at similar prices produced through similar techniques as immaterial to progress.

#### **IV. THE IMPACT OF LIQUIDITY MANAGEMENT ON PROFITABILITY**

In this part, we will examine the effect of liquidity management on the profitability of banks, through analysis a range of research and studies related the world over.

The first study for Obilor [13], Showed us the results of this study have shown that liquidity management is indeed a crucial problem in the Nigerian banking industry. The variables selected have not performed well in terms of their

contribution towards the performance of the selected banks as represented by profit after tax. Mentioned is the fact that the management of cash and short-term fund Bank (cash asset (CA)) in the three selected banks contributed negatively in Afribank and United Bank for Africa and minimally in Diamond Bank. The rest of the independent variables did not contribute much to the performance of the banks. The results are in line with the current global trend where liquidity has become a constant source of anxiety to the financial sector.

Cash and short-term fund (CA) have not been properly managed in United Bank for Africa (UBA) which means that the amount held may have been in excess of the requirement for greater performance since cash is sterile. The results also have shown that banks should hold more treasury bills and certificates (TBC) as their impact on bank performance has been consistently commendable in the three selected banks. So, they conclude that there is a significant relationship between liquidity and bank profitability.

According to Ismail [14] the purpose of his study was to analyze the impact of liquidity management on the performance of the Pakistani Firms constituting KSE 100 Index. Data sources of the study are audited annual reports of companies, and balance sheet analysis (2006-2011) by State Bank of Pakistan. In this study entire population (KSE-100 Index) was sampled for the period from 2006 to 2011, this study dropped companies with incomplete data and financial companies due to their dissimilar nature. Finally, 64 non-financial companies are considered for the period of investigation 2006-2011. Ismail developed hypotheses for his study as:

H1: Current Ratio is positively associated with the firm performance.

H2: Quick Ratio is positively associated with the firm performance.

H3: Cash Ratio is positively associated with the firm performance.

H4: Longer cash conversion cycle is negatively associated with the firm performance.

Also, to derive the results of the study; descriptive statistical analysis, correlation analysis and multiple regression; tools of analysis are applied. E-views8 is used for analysis. Following quantitative model is used for multiple regression analysis.

$$ROA = \beta_0 + \beta_1CRR + \beta_2QUR + \beta_3CR + \beta_4CCC + Ut$$

Where ROA is return on assets, CRR is current ratio, QUR is quick ratio, CR is cash ratio and CCC is cash conversion cycle. Ut is the error term. The liquidity (independent) indicators of the study are current ratio, quick ratio, cash ratio, and the cash conversion cycle, whereas profitability (dependent) indicator is return on assets. Table 5 shows the calculations of liquidity and profitability variables. The regression analysis results indicate that high current ratio and longer CCC lead firms towards better performance in terms of return on assets. The study found that current ratio has a significant positive impact on ROA of the sampled firms.

The study of Priya & Nimalathan [15] aimed at finding the effect of changes in liquidity levels on profitability of manufacturing companies in Sri Lanka. The study covered listed manufacturing companies in Sri Lanka over a period of past 5 years from 2008 to 2012. Correlation and regression analysis were used in the analysis and findings suggest that there is a significant relationship exists between liquidity and profitability among the listed manufacturing companies in Sri Lanka. Suggested that Inventory Sales Period (ISP), Current Ratio (CR) and are significantly correlated with Return on Asset (ROA), Operating Cash Flow Ratio (OCFR) are significantly correlated with Return on Equity (ROE) 5 percent level of significance. At the same time ISP and OCFR also are significantly correlated with ROA, Creditors Payment Period (CPP) also is significantly correlated with ROE at 1 percent level of significance.

The study concluded how liquidity management will handle these uncertainties and determine their effects on profitability. Also, this study was aimed at discovering the specific factors that were useful in enhancing the profitability and liquidity position of the companies. Management of liquidity and profitability has become a crucial issue in today's cut throat competition. If the firm decreases its liquidity the profitability would be high. the results show that there is a negative relationship between profitability and liquidity. So, it is essential for every firm to maintain equilibrium between profitability and liquidity.

According to the study of Alshatti [6] which aimed at investigating the impact of the banking liquidity management on profitability in the Jordanian commercial banks, considering their need to keep the highest balance between liquidity and profitability at the same time. Therefore, this research will focus on identifying the most important indicators of the

liquidity management, investigate the effect of each indicator on the banks' profitability, identify the effect of the liquidity management as a whole on profitability in the commercial banks, and lastly to suggest a recommendation needed to achieve the required consensus between liquidity and profitability in these banks.

profitability in the Jordanian commercial banks as measured by ROE or ROA, where the effect of the investment ratio and quick ratios on the profitability is positive when measured by ROE, and the effect of capital ratio on profitability is positive as measured by ROA, and the effect of the other independent variables on the two measures of profitability (ROE and ROA) is negative, the researcher thinks that this negative effect is due to the increased volume of untapped deposits at the Jordanian commercial banks.

Consequently, the researcher recommends that there is a need to invest the excess of liquidity available at the banks, in a various aspects of investments in order to increase the banks' profitability and to get benefits from the time value of the available money, also the Jordanian commercial banks should adopt a general framework for liquidity management to assure a sufficient liquidity for executing their works efficiently, and there is a need to make an analytical study of the liquidity evolution rates to assess the banks' ability to achieve a balance between sources and uses of funds, the banks need to adopt of a scientific methods in detection of the strengths and weaknesses points of liquidity, especially in light of the sudden circumstances that may be exposed by banks.

The study of Lartey [16] sought to find out the relationship between the liquidity and the profitability of banks listed on the Ghana Stock Exchange. Seven out of the nine listed banks were involved in the study. The study was descriptive in nature. It adopted the longitudinal time dimension, specifically, the panel method. Document analysis was the main research procedure adopted to collect secondary data for the study. The financial reports of the seven listed banks were studied and relevant liquidity and profitability ratios were computed. The trend in liquidity and profitability were determined by the use of time series analysis. The main liquidity ratio was regressed on the profitability ratio. It was found that for the period 2005-2010, both the liquidity and the profitability of the listed banks were declining. Again, it was also found that there was a very weak positive relationship between the liquidity and the profitability of the listed banks in Ghana.

Also, Lartey [16] pointed at the conclusion of their study" both the liquidity and the profitability levels of the listed banks were decreasing within the period 2005-2010. There was a weak positive relationship between the liquidity and the profitability of the listed banks. These findings support Bourke (1989) who found some evidence of a positive relationship between liquid assets and bank profitability for 90 banks in Europe, North America and Australia from 1972 to 1981. In view of the fact that liquidity has some amount of bearings on the profitability of a bank, it is important that banks manage their liquidity very well. When banks hold adequate liquid assets, their profitability would improve. Adequate liquidity helps the bank minimize liquidity risk and financial crises. The bank can absorb any possible unforeseen shock caused by an unexpected need for a decrease in liabilities or increase in assets side of the Statement of Financial Position. However, if liquid assets are held excessively, profitability could diminish. Liquid assets usually have no or little interest generating capacity. The opportunity cost of holding low-return assets would eventually outweigh the benefit of any increase in the bank's liquidity resiliency as perceived by funding markets".

## V. CONCLUSION

This study has examined the impact of the liquidity management on the Profitability of firms and banks. the results were varied, where were some result of them positive and the other was negative. Table I summed up these studies and the results that have been reached in these studies.

**TABLE I: SUMMED STUDIES AND THE RESULTS THAT HAVE BEEN REACHED**

No.	Names of Researchers	Country of Study	Date of Study	Result
1	Priya, K. & Nimalathan, B.	Sri Lanka	2013	Negative Impact
2	Alshatti, S.	Jordan	2014	Negative Impact
3	Ibe Obilor, S.	Nigeria	2013	Positive Impact
4	Ismail, R.	Pakistan	2016	Positive Impact
5	Lartey, V. et all	Ghana	2013	Weak Positive Impact

**Source:** prepared by the researcher.

## VI. RECOMMENDATION

There is the need for banks to engage competent and qualified personnel. The right personnel will ensure that the right decisions are made especially with the optimal level of cash and treasury bills and certificates to keep. The banks need to be more aggressive in the area of profit enhancement. While we emphasize the need for a more aggressive approach to investing idle cash, of more importance is the need for proper investment analysis, which has the benefit of sieving out unprofitable investments and even avoiding the unnecessary taking of risk.

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