AN IMPACT OF LIQUIDITY MANAGEMENT ON PROFITABILITY: A STUDY OF SELECTED PUBLIC SECTOR BANKS IN INDIA

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ABSTRACT
Liquidity and profitability are two important but conflicting goals of any commercial bank. So, the purpose of present study is to analyse the impact of liquidity on profitability of selected public sector banks in India. In present study, for measuring liquidity two accounting ratios which are current ratio and quick ratio are used; and for measuring profitability, net profit margin and return on capital employed are used. For the analysis, ten public sector banks are selected, which are earning higher profits. The data is obtained for five years, multiple correlation and regression are used for analysing the data. The study concluded that that there is highly negative correlation between liquidity ratios (current ratio and quick ratio) and profitability ratios (net profit margin and return on capital employed). Regression analysis concluded that indicate that current ratio is having great impact on return on capital employed. Quick ratio is having great impact on net profit margin.

Keywords: Liquidity management, Profitability, Public sector Banks

INTRODUCTION
Efficient utilization of cash is precondition to Successful survival of a bank. A bank receives money from customers on various deposit accounts and pays cash to depositors and borrowers and also to those who have transferred their funds by way of mail or telegraphic communication. There would have been little or no need of cash in vaults if cash inflows and cash outflows had been properly synchronized.

However, in a banking concern where quantum and character of cash flows is essentially conditioned by myriads of external factors and the banker has little say in governing the cash position, synchronization of cash inflows and outflows cannot be effectively done. A banker does not know when money will be deposited nor is he informed, except in the case of fixed deposits, in advance of the requirements of individual customers. Hence there is an element of uncertainty. It is, therefore, necessary for a bank to carry a reasonable amount of cash at all times so that it may satisfy the claims of the customers promptly. If it fails to do so, it will lose public confidence which may subsequently become the root cause for the bank liquidation. However, if bank keeps excess cash in tills there is a loss of opportunity earnings to the banks which it would have obtained by investing mainly, in alternative uses. Thus a banker is faced with dilemma between liquidity and profitability. In actual practice bankers have been found keeping excess cash to avoid the risk of running out of cash because of uncertain behaviour of the customers regarding cash requirements. From their past experience they decide the proportion of deposit liabilities to be held in cash without examining whether such cash level is really the optimal level. They do not realize that by holding more than necessary cash for safety and liquidity of the bank, they are cutting into the margin of bank’s profitability.
Efficient and effective liquidity management is crucial if the survival and prosperity of small firms is to be ensured. Liquidity refers to the level of cash and near-cash assets held, as well as cash inflows and outflows of these assets. McMahon and Stanger (1995, p. 24) further emphasize the importance of liquidity in a firm as being “a matter of life or death for the small business” since a small business can “survive for a long time without a profit, but fails the day it can't meet a critical payment”. However, according to Hartcher (2003) this important issue has for some time been overlooked in some countries, with limited research in others. Posits that the efficient management of working capital (inventory, debtors and creditors) is crucial in respect of the prosperity and survival of SMEs, and Drever (2005) sees the soundness of liquidity management as the most critical influence on survival and financial well-being in small enterprises. Liquidity management takes the form of cash management and credit management. Whilst the most important aspect of cash flow management is avoiding extended cash shortages, credit management involves not only the giving and receiving of credit to customers and suppliers, but also involves the assessment of individual customers, the credit periods allowed and the steps taken to ensure that payments are made in time.

According to Deloof (2003) management of liquidity is important from the point of view of both working capital and profitability. Poor management of liquidity level means that funds are unnecessarily tied up in idle assets hence reducing liquidity and also reducing the ability to invest in productive assets. Deloof (2003) argues that whilst providing credit to customers is an inexpensive source of finance for customers, the flip side is that money is locked up in working capital. He further points out that whilst delaying payment to suppliers can be inexpensive and flexible source of financing for firms, late payment of invoices can be very costly. Therefore, the efficient management of these components is essential. A number of models have been advanced to determine the optimal cash level in a firm. These include the Baumol, Miller-Orr, Simulation and Lockyer’s Models.

Keynes, 1964 postulated that liquidity preference theory consists in the statement that the rate of interest at any time, being the reward for parting with liquidity, is a measure of the unwillingness of those who possess money to part with their liquid control over it. The rate of interest is the price which equilibrates the desire to hold wealth in the form of cash with the available quantity of cash. The reasons to have a preference for liquidity are because there are several reasons for holding cash. These motives became known as transactions, speculative and precautionary motives to demand money. In the world of Keynes’ General Theory (1936), however, the quantity of money in existence is the ultimate independent variables determined by the action of the central bank. Seemingly, Keynesian writings described liquidity preference to mean demand for money and liquidity preference theory as a theory whereby the rate of interest is determined by demand and supply of money.

OBJECTIVES

The objectives of present study are:

1. To study the relationship between the liquidity and profitability of top public sector banks in India.

2. To Analyse the effect of different components of liquidity on profitability of public sector banks.

RESEARCH DESIGN

Sources of the data

Secondary data is used for the study. The data were collected from official websites of the concerned public sector banks. Also, Various Research papers, articles and Journals reviewed for the purpose of this study.

Period of the study

This study includes the data of past five years from 2012-13 to 2016-17.
Sample of the study:

For the study, the purpose of this study, 10 public sector banks are selected as a sample. These 10 commercial banks are the Top Constituents by Weightage of Nifty Bank Index as on October 31, 2017. These 10 commercial banks are as follows:

1. SBI
2. Indian Bank
3. Bank of Baroda
4. PNB
5. Canara Bank
6. Vijaya Bank
7. Corporation Bank
8. Union Bank
9. Syndicate Bank
10. United Bank

FRAMEWORK OF ANALYSIS

The purpose of this study is to analyse the impact of liquidity on the profitability of selected public sector banks. Current ratio, Quick Ratio and Loan to deposit ratio are considered for measuring the liquidity and Net profit margin, return on capital employed and Return on assets are taken into account for measuring profitability. Below are the formulas for calculation of these ratios:

\[
\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}
\]

\[
\text{Quick Ratio} = \frac{\text{Quick assets}}{\text{Quick liabilities}}
\]

\[
\text{Net Profit margin} = \frac{\text{Net profit}}{\text{Total income}}
\]

\[
\text{Return on capital Employed} = \frac{\text{Revenue}}{\text{Capital Employed}}
\]

ANALYSIS AND INTERPRETATION

Multiple correlation

Table 1: Correlation matrix

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Current Ratio</th>
<th>Quick Ratio</th>
<th>Net Profit Margin</th>
<th>Return on Capital Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Ratio</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quick Ratio</td>
<td>0.86</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td>-0.73</td>
<td>-0.81</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Return on Capital Employed</td>
<td>-0.90</td>
<td>-0.66</td>
<td>0.78</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Multiple correlation using Excel
The analysis shows there is highly positive correlation between current ratio and quick ratio. While there is highly negative correlation between current ratio and net profit margin and return on capital employed. As per the above matrix, Quick ratio is significantly negatively correlated with net profit margin and return on capital employed.

**Analysis using Regression**

<table>
<thead>
<tr>
<th>Model</th>
<th>Predictor</th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>Std error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net profit margin</td>
<td>Current ratio</td>
<td>0.73</td>
<td>0.53</td>
<td>0.37</td>
<td>3.39</td>
</tr>
<tr>
<td>Return on capital employed</td>
<td>Current ratio</td>
<td>0.90</td>
<td>0.81</td>
<td>0.75</td>
<td>0.15</td>
</tr>
<tr>
<td>Net profit margin</td>
<td>Quick ratio</td>
<td>0.81</td>
<td>0.66</td>
<td>0.54</td>
<td>2.88</td>
</tr>
<tr>
<td>Return on capital employed</td>
<td>Quick ratio</td>
<td>0.66</td>
<td>0.44</td>
<td>0.25</td>
<td>0.26</td>
</tr>
</tbody>
</table>

Source: Regression using Excel

Current ratio is having great impact on return on capital employed. Quick ratio is having great impact on net profit margin.

**CONCLUSION**

Profitability and Liquidity are two conflicting goals of any bank. If bankers maintain excess liquid amount, then there will be a loss on the part of earnings, and on the other hand, if he gives emphasizes on profitability then there are the chances of losing depositors’ trust. So, the bank should balance these both the factors and should maintain adequate funds in such a way that demand of depositors can easily be fulfilled.

**LIMITATION OF THE STUDY**

1. The data of this study is secondary in nature, so all the shortcomings of secondary data will become limitations of this study.
2. Time period of this study is limited to five years only, so it can be possible that results of present study may not remain same for another period.
3. For the study, only public sector banks are considered which are earning higher absolute profits, so one cannot derive conclusion of whole banking sector on the basis of this study.

**REFERENCES**