

Trade-Off between Liquidity and Profitability: A Comparative Study between State Banks and Private Banks in Sri Lanka

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Abstract

Banks are the one of the most popular financial institution and those banks contribute the economic development and growth of economic. The banks play a crucial role in the competitive environment. Nowadays various types of human society wants to invest in banks and to earn more interest and obtain the other additional facilities such as leasing, loan, pawing and mortgage. An efficient and effective liquidity management provides an enjoyable profitability and leads to survival. There the purpose arises on the study is to find out the effect of liquidity on banks and also compare the banking organization that which bank play a better role, and also give suggestion based on the findings. The present study is initiated on liquidity and profitability trade –off with the samples of State Banks and private Banks in Sri Lanka over period of 2008-2012. All samples are licensed commercial banks. Current ratio (CR) and Quick ratio (QR) were used to measure liquidity as well as Net Profit margin (NP), Return on Assets (ROA) and Return on Equity (ROE) were used to measure the dependent variable as Profitability. The Statistical tests were used to find out the effects of liquidity and Profitability these are: descriptive statistics, correlation and regression analysis. The study found that insignificant correlation between liquidity and profitability both State Banks and Private Banks. And regression shows the negative impact of liquidity on profitability in selected Banks in Sri Lanka.

Keywords: Liquidity, Profitability, Trade-off, Banks in Sri Lanka.

Introduction

Theoretically, Liquidity and Profitability may be a simple term but in practice, it has become one of most important issues in the organizations. Practically, profitability and liquidity are effective indicators of the corporate health and performance of not only the commercial banks (Eljelly, 2004), but all profit-oriented ventures. These performance indicators are very important to the shareholders and depositors who are major publics of a bank. A study of liquidity is of major importance to both the internal and external analysts because of its close relationship with day to day operations of a business (Bhunja, 2010). The banking organizations, today, is moving towards the goal of integrated financial services because of the strong competition and quick changes of technology. In developing countries, like Sri Lanka, banking organizations provide fund for other organizational developments.

An ultimate goal of a firm is the maximization of wealth or value of that firm (Miller & Modigliani, 1958, 1963; Miller, 1977). Basically, banks engage in financial intermediation to ensure efficient mobilization & disbursement of funds to the real sector of the economy. Though other financial institutions exist to engage in the intermediation process banks are considered the most important financial intermediaries. The ability of a financial institution to meet demand for deposit withdrawals and other cash outflows is a visible indicator of its viability. The level of liquidity which is maintained must at a minimum meet regulatory requirements. Liquidity must also be sufficient to satisfy demand for cash withdrawals, financing. Liquidity risk for a bank is especially prevalent as it is easy for a bank to lose its liquidity because depositors can withdraw funds when they choose. (Gatev, Schuermann, & Strahan, 2007)

Research Problem

Nowadays, world is becoming a globalization. Thus, in banking activities, marketing is very important aspect to carry out their activities effectively. Further, due to the increasing market competition and information technology in banking activities, this is very important in the comparison of market standing between private banks and public banks. Banks face two central issues regarding liquidity. Banks are responsible for managing liquidity creation and liquidity risk. Liquidity and profitability are some of the most studied concepts of financial management within the area, there is a vast literature in this field. The interaction between these two variables was seen by many economists as over time like Hirigoyen G. (1985), Eljelly A. (2004) and Assaf Neto, A. (2003).

If the company or industry have poor working capital management that will affect on industry's output so this lead to problem to handle daily operation effectively.

Hence, the study will be made to identify the trade-off between liquidity and profitability of selected banks in Sri Lanka. So in this research following questions are arising.

- How does the profitability measure
- How does the liquidity measure

- How does liquidity impact on profitability
- How does compare the impact in the selected banks.

Objectives

The objectives are geared towards the following

- To explore the liquidity-profitability trade-off.
- To find out the factors influence on Liquidity.
- To make some suggestions and specific recommendations for improvement of the liquidity management.

Review of Literature

Liquidity plays a crucial role in the successful functioning of a business firm. A study of liquidity is of major importance to both the internal and external analysts because of its close relationship with day to day operations of a business (Bhunia, 2010).

Liquidity also refers both to a business's ability to meet its payment obligations, in terms of possessing sufficient liquid assets, and to such assets themselves. An act of exchange of a less liquid asset with a more liquid asset is called liquidation. The crucial part in managing working capital is required maintaining its liquidity in day-to- day operation to ensure its smooth running and meets its obligation (Eljelly, 2004).

Liquidity is a prime concern in a banking environment and a shortage of liquidity has often been a trigger for bank failures. There are many factors that affect banks own liquidity and in turn affect the amount of liquidity they can create. These factors have a varying degree of influence on the balance between liquidity risk and liquidity creation, or a bank's liquidity management. A bank's assets and liabilities play a central role in their balancing of liquidity risk and creation. Holding assets in a highly liquid form tends to reduce the income from that asset (cash, for example, is the most liquid asset of all but pays no interest) so banks will try to reduce liquid assets as far as possible.

Amalendu Bhunia,(2007), liquidity management of public sector iron and steel enterprises in India, They concluded that the actual values of working capital have been found to be lower than the estimated values of working capital for both the companies under study. Evan Gatev & Philip Strahan (2003), stated banks' advantage in hedging liquidity risk, They found that banks are viewed as a safe haven for funds, during periods of market uncertainty both the supply of bank funds and the demand for bank loans tend to move up together.

Velnampy & Nireesh (2012) investigated the association between capital structure and profitability of listed Sri Lankan banks over the period of 8 years from 2002 to 2009.

They selected a large size sample as 10 from the 20 sectors; Banks Finance & Insurance sector. Results of their analysis show that, there is a negative association between capital structure and profitability except the association between debt to equity and return on equity. Furthermore, Velnampy made a research on value added, productivity and performance of few selected companies in Sri Lanka. The study reveals that, profit before tax per employee and value added per rupee of fixed asset is positively correlated and labour cost to sales and gross profit is also positively correlated. Further the labour cost to value added is correlated with gross profit and value added per rupee of fixed asset and no relationship was found between the rest of the productivity and performance measures. Kulkanya Napompech (2012) investigated Effects of Working Capital Management on the Profitability of Thai Listed Firms. The researcher found that a negative relationship between the gross operating profits and inventory conversion period and the receivables collection period. Bhaskar Podder (2012) investigated Determinants of profitability of private commercial banks in bangladesh: an empirical study. The result has revealed that among the variables, as expected, total asset, Business per Employee and No. of Branches are found to have positive and significant impact and non-performing loan as percentage of total advance is found to have negative and significant impact on profitability.

Etienne Bordeleau & Christopher Graham (2010) investigated The impact of Liquidity on Bank Profitability. They found that a nonlinear relationship exists, whereby profitability is improved for banks that hold some liquid assets, however, there is a point beyond which holding further liquid assets diminishes a bank's profitability, all else equal and At the same time, estimation results provide some evidence that the relationship between liquid assets and profitability depends on the bank's business model and the risk of funding market difficulties. Velnampy (2006) examined the financial position of the companies and the relationship between financial position and profitability , His findings suggest that, out of 25 companies only 4 companies are in the condition of going to bankrupt in the near future. He also found that, earning/total assets ratio, market value of total equity/book value of debt ratio and sales/total assets in times are the most significant ratios in determining the financial position of the quoted companies. Ajanthan (2013) investigated the Nexus between Liquidity and Profitability of trading companies in Sri Lanka. findings suggest that there is a significant relationship exists between liquidity and profitability among the listed trading companies in Sri Lanka. Nireesh (2012) investigated the Trade- off between Liquidity and Profitability, He found that, there is no significant relationship between

liquidity and profitability among the listed manufacturing firms in Sri Lanka.

Amelundu Bhunia, Basker bagcgi & Basanta khamrui (2012) investigated the Impact of Liquidity on Profitability, They found that correlation and Regression results are significantly positive associated to the Firm Profitability. Victor Curtis Lartey, Samuel Antwi1 & Eric Kofi Boadi (2013) evaluated The Relationship between Liquidity and Profitability of Listed Banks in Ghana the result expressed that 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

Conceptualization

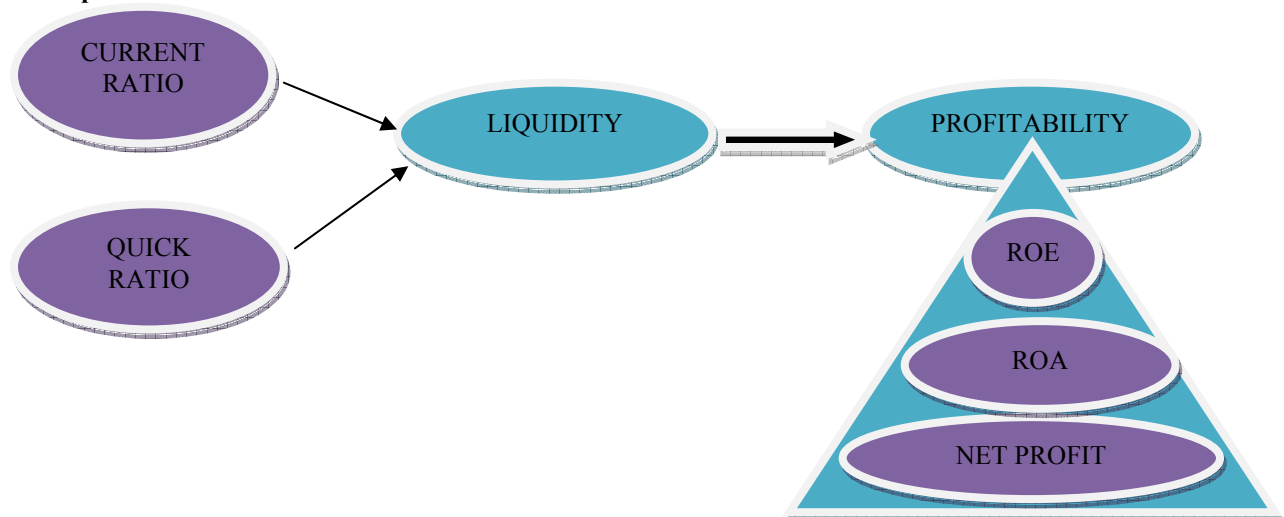


Figure 1: Conceptualization Model

Hypotheses of the Study

On the basis of the study, the following hypotheses were developed.

- H1: There is a significant Negative relationship between Current Ratio and Net Profit
- H2: There is a negative relationship between Current ratio and Return on Assets.
- H3: There is a negative relationship between Current ratio and Return on Equity.
- H4: There is a negative relationship between Quick Ratio and Net Profit margin
- H5: There is a negative relationship between Quick Ratio and Return on Assets.
- H6: There is a negative relationship between Quick Ratio and Return on Equity.
- H7: There is a significant relationship between State Banks and Private Banks in Liquidity and Profitability Trade- off.

Methodology

a) Data Collection

The present study used secondary data for the analysis. Available and possible Secondary data is data that have been previously collected for some other project rather than the one at hand but found useful by the researcher. The financial statements which are made up of income statements and balance sheets of the sample banks were the main sources of data for this study. These were obtained from the Hand book of Listed Companies 2007 & the annual reports of respective banks. Further, scholarly articles from academic journals, relevant text books on the subject

and the internet search engines were also used. Specifically, the financial statements of the banks in the sample were collected for the period 2008-2012 and a balanced panel of ten banks emerged for the study.

b) Sampling Design

Sampling design describes the plan for obtaining sample from stated population, the Jankowicz, (1994) and Saunders, Lewis and Thornhill (1996) stated that the population from data collected using any sample is based on probability. In order to be able to generalize about the research finding to the population, it is necessary to select samples of sufficient size. A large sample size is always better than a small one. There are a total of 13 local banks and 6 international banks that are operations in Sri Lanka. They are all governed by Central Bank of Sri Lanka out of which 3 are in the public banking sector and remaining is in the private banking sector. In both of the private and public banking sectors, 2 of every sector will be selected for the study purpose all of which have been local banks and licensed commercial banks. Each has been selected on the basis of random sampling.

c) Mode of Analysis

The quantitative research approach is done to get the findings of the research study. Since numerical and secondary data is used, quantitative approach is considered to be a suitable approach for the study. Leavy (2004), stated that the “statistical analyses are used to describe an account for the observed variability in the data”. Therefore, the describe statistics and inferential statistics have been used. The describe statistics summarized the behavior of the variables and inferential statistics were used to draw conclusion about the reliability and generalizability of the findings. So the correlation analysis and regression analysis have been used to conclude the findings.

d) Research Model

The research model represents the relationship between dependent variable and independent variable. Here the profitability (P) is depend on Liquidity (L), thus, the P is dependent variable and L is independent variable and the independent variable are measured by Current Ratio and Quick Ratio. Therefore the research model is created as follows

$$P = \beta_0 + \beta_1 CR + \beta_2 QR + \epsilon_i$$

Here the Profitability (P) is measured by Net Profit Ratio Return On Assets(ROA) and Return On Equity (ROE).

Results & Analysis

a) Descriptive Statistics

Table1 - Descriptive Statistic of variables for State Banks

	N	Minimum	Maximum	Mean	Std. Deviation
Current Ratio(CR)	5	.94	1.05	1.0100	.04123
Quick Ratio (QR)	5	.021	.063	.03480	.016559
Net Profit (NP)	5	4.83	16.10	9.5340	4.77548
Return on Assets (ROA)	5	1.11	2.36	1.7060	.52396
Return On Equity (ROE)	5	16.28	41.33	27.4020	11.20639

The descriptive statistics show the profitability and liquidity for the state banks over period. Liquidity is measured by current ratio and quick ratio these mean average is 1.01, 0.348 respectively. The profitability is measured by Net profit margin, ROA and ROE 9.534, 1.706 and 27.402 respectively. Values of profitability measures were found to be higher than those of liquidity measures even though a low Profitability means the bank profit efficiency is below industry norms. The norms of the current ratio is 2:1 to 3:1 and quick ratio is 1:1 to 1.5:1, here the liquidity position shows not enough fund to cover the short term liability in the State Banks in Sri Lanka.

Table 2 : Descriptive Statistics of variables for Private Banks

	N	Minimum	Maximum	Mean	Std. Deviation
Current Ratio(CR)	5	1.08	1.12	1.0940	.01673
Quick Ratio (QR)	5	.017	.055	.03760	.013704
Net Profit (NP)	5	8.01	14.75	11.9720	3.19552
Return on Assets (ROA)	5	1.27	2.36	1.7160	.41819
Return On Equity (ROE)	5	16.27	21.63	19.6380	2.50826

The table 2 shows the descriptive statistic of variable for the state banks. Liquidity is measured by current ratio and quick ratio these mean average is 1.094, 0.376 respectively. The profitability is measured by Net profit margin, ROA and ROE 11.97, 1.716 and 19.638 respectively. Values of profitability measures were found to be higher than those of liquidity measures even though Profitability is better than the state banks. The norms of the current ratio is 2:1 to 3:1 and quick ratio is 1:1 to 1.5:1, this also show the lower efficiency to cover the short term obligations in private banks.

b) Correlation Analysis
Table 3: Correlation Analysis
Correlations

		Current ratio	Quick ratio	Net Profit	ROA	ROE
current ratio	Pearson Correlation	1	-.835	.315	.414	.320
	Sig. (2-tailed)		.079	.606	.488	.599
	N	5	5	5	5	5
quick ratio	Pearson Correlation	-.835	1	-.630	-.681	-.606
	Sig. (2-tailed)	.079		.255	.206	.279
	N	5	5	5	5	5
net profit	Pearson Correlation	.315	-.630	1	.989**	.990**
	Sig. (2-tailed)	.606	.255		.001	.001
	N	5	5	5	5	5
return on assets	Pearson Correlation	.414	-.681	.989**	1	.994**
	Sig. (2-tailed)	.488	.206	.001		.001
	N	5	5	5	5	5
roe	Pearson Correlation	.320	-.606	.990**	.994**	1
	Sig. (2-tailed)	.599	.279	.001	.001	
	N	5	5	5	5	5

** . Correlation is significant at the 0.01 level (2-tailed).

The table 3.shows that the correlation matrix, the Pearson's correlation coefficient, p- value for two tailed test of significance and the sample size of dependent variable and independent variable for state banks. From the output, the correlation coefficient between CR and NP is .315 and the P value for two tailed test is (.606) greater than 0.05. Therefore there is a weak positive correlation between current Ratio and Net Profit margin and that this correlation is insignificant at the significant level of 0.05, the correlation coefficient between CR and ROA is .414 and the P value for two tailed test is (.488) greater than 0.05. The correlation coefficient between CR and ROE is .320 and the P value for two tailed test is (.599) greater than 0.05. The table sees that there is a weak positive correlation between current Ratio and Return on Equity and that this correlation is insignificant at the significant level of 0.05. The correlation coefficient between QR and NP is -.630 and the P value for two tailed test is (.255) greater than 0.05. There is a moderate negative correlation between Quick Ratio and Net Profit margin and that this correlation is insignificant at the significant level of 0.05. the correlation coefficient between QR and ROA is -.681 and the P value for two tailed test is (.206) greater than 0.05. Therefore there is a moderate negative correlation between Quick Ratio and Return on Assets and that this correlation is insignificant at the significant level of 0.05, the correlation coefficient between QR and ROE is -.606 and the P value for two tailed test is (.279) greater than 0.05there is a moderate negative correlation between Quick Ratio and Return on Equity and that this correlation is insignificant at the significant level of 0.05.

Table 3: Correlation Analysis for Private Banks Correlations

		Current Ratio	Quick Ratio	Net Profit Ratio	Return On Assets	Return On Equity
Current Ratio	Pearson Correlation	1	.118	.757	.971**	.772
	Sig. (2-tailed)		.850	.139	.006	.126
	N	5	5	5	5	5
Quick Ratio	Pearson Correlation	.118	1	.245	.277	.300
	Sig. (2-tailed)	.850		.691	.652	.624
	N	5	5	5	5	5
Net Profit Ratio	Pearson Correlation	.757	.245	1	.834	.991**
	Sig. (2-tailed)	.139	.691		.079	.001
	N	5	5	5	5	5
Return On Assets	Pearson Correlation	.971**	.277	.834	1	.836
	Sig. (2-tailed)	.006	.652	.079		.077
	N	5	5	5	5	5
Return On Equity	Pearson Correlation	.772	.300	.991**	.836	1
	Sig. (2-tailed)	.126	.624	.001	.077	
	N	5	5	5	5	5

** . Correlation is significant at the 0.01 level (2-tailed).

In private banks, from the output, the correlation coefficient is .757 and the P value for two tailed test is (.139) greater than 0.05. Therefore there is a strong positive correlation between current Ratio and Net Profit margin and this correlation is insignificant at the significant level of 0.05. The correlation coefficient between CR and ROA is .971 and the P value for two tailed test is (.006) less than 0.01. There is a strong positive correlation between current Ratio and Return on Assets and this correlation is significant at the significant level of 0.01. The correlation coefficient between CR and ROE is .772 and the P value for two tailed test is (.126) greater than 0.05. The researcher can see that there is a strong positive correlation between current Ratio and Return on Equity and this correlation is insignificant at the significant level of 0.05 , the correlation coefficient between CR and ROE is .245 and the P value for two tailed test is (.691) greater than 0.05. Therefore there is a strong positive correlation between QR and NP and this correlation is insignificant at the significant level of 0.05. The correlation coefficient between QR and ROA is .277 and the P value for two tailed test is (.652) greater than 0.05. The researcher can see that there is a weak positive correlation between Quick Ratio and Return On Assets and this correlation is insignificant at the significant level of 0.05. The correlation coefficient between QR and ROE is .300 and the P value for two tailed test is (.624) greater than 0.05. The researcher can see that there is a weak positive correlation between Quick Ratio and Return On Equity and this correlation is insignificant at the significant level of 0.05.

c) Hypotheses Testing

No	Hypotheses	Banks	Results	Tools
H1	There is a significant negative relationship between CR and NP	State Banks Private Banks	Accepted Accepted	Correlation
H2	There is a significant negative relationship between CR and ROA	State Banks Private Banks	Accepted Rejected	Correlation
H3	There is a significant negative relationship between CR and ROE	State Banks Private Banks	Accepted Accepted	Correlation
H4	There is a significant negative relationship between QR and NP	State Banks Private Banks	Accepted Accepted	Correlation
H5	There is a significant negative relationship between QR and ROA	State Banks Private Banks	Accepted Accepted	Correlation
H6	There is a significant negative relationship between QR and ROE	State Banks Private Banks	Accepted Accepted	Correlation
H7	There is a significant relationship between State Banks and Private Banks in Liquidity Profitability Trade- off	-	Accepted	Correlation

Conclusion & Recommendation

The researcher found that there are Pearson correlation exist between CR and Profitability (NP,ROA,ROE) in a weak positive, and QR negatively correlated with all Profitability ratios this shows that the liquidity correlated profitability partially. And the p value of significant of 2 tailed is greater than at significant level 0.05 between all independent variables (CR,QR) and dependent variables (NP,ROA,ROE) which is insignificant relationship between liquidity and profitability therefore the researcher can conclude that there is a positive relationship between liquidity and profitability in State Banks but which are not insignificant. In Private Banks the liquidity is fully correlated with liquidity because of CR consist of strong positive correlation with profitability ratios and weak positive correlation exist between QR and Profitability ratios. And P value of significant of 2 tailed is less than at significant 0.01 levels between CR and ROA which find out the significant relationship between CR and ROA. Other profitability ratios insignificant with CR, in the same time QR also have an insignificant relationship with profitability ratios. Therefore the researcher can conclude over all there is a positive correlation exist between liquidity and profitability but which is not significant in Private Banks In State Banks, the liquidity and profitability partially correlated and insignificant relationship between liquidity and profitability in same time the positive correlation exist between liquidity and profitability in Private Banks and significant relationship. In State Banks, the liquidity and profitability partially correlated and insignificant relationship between liquidity and profitability in same time the positive correlation exist between liquidity and profitability in Private Banks and significant relationship exist between CR and ROA and other not significant. Therefore the results found that there is a positive mean difference exist between State Banks and Private Banks in Sri Lanka, and when was compared each other the Private Banks have a better position than State banks in liquidity profitability trade-off in Sri Lanka.

The results revealed that profitability will be optimized only when liquidity is effectively and efficiently managed that is when the commercial bank is able to meet its financial obligations and at the same time maximizes its profits. Olagunju, Adebayo Adeyanju Olanrewaju David and Olabode Oluwayinka Samuel (2011), there is a positive relationship between liquidity and profitability in commercial bank.

Suggestions and Recommendations

I hereby make the following recommendations with the sincere conviction that they will help to reduce if not totally eradicate the problems associated with liquidity management and profitability in banks.

- Sri Lankan banking Liquidity is strongly determined by the type depositors because depositors are main customers in the banking sectors. So we can suggest that every banking sector should take decision about the valuable depositors
- Since the survival of commercial banks depend on liquidity management and profitability, they should not solely concentrate on the profit maximization concept but should also adopt measures that will ensure effective liquidity management. The measures will help to minimize or avoid cases of excessive and deficient liquidity as their effects.
- Instead of keeping excessive liquidity as a provision for unexpected withdrawal demands of the customers, the commercial banks should find it reasonable to adopt other measures of meeting such requirements, which can include borrowing and discounting bills. In addition, the surplus funds of the commercial banks should be seasonally invested in short-term instruments of the money market

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