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Impact of Liquidity on Profitability through EBITDA Margin: A Study of Sri Lankan Banking Industry

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Abstract

Liquidity and the profitability are regarded as the important indicators of the organizational health. As every firms intend to maximize the shareholder wealth, it is essential to keep an eye on the liquidity and profitability. Because, it is generally accepted that the excess liquidity reduces the ability to earn profit and insufficient liquidity will disturb the smooth functioning of the operations. Thus, this study primarily focuses to evaluate the impact of the liquidity on the profitability. Also, the movement of the liquidity and the profitability and income tax has been explored using descriptive statistics. Furthermore, liquidity is operationalized as the Current ratio and liquidity ratio whereas profitability as EBITDA Margin. The study used IBM SPSS statistics 25 to analyze data. Descriptive analysis and regression tests have performed. The results indicated the positive impact of the current and liquidity ratios on the EBITDA Margin. Also, with regard to the income tax, it has specifically shown a decreasing trend from 2018-2022 in the Sri Lankan context. Moreover, the liquidity and the profitability ratios have portrayed a slight decreasing trend from 2012-2022. Most interestingly, this study adds the valuable contribution to the existing literature by using EBITDA Margin to operationalize profitability amongst traditional measures.

Keyword: Liquidity, Profitability, Sri Lanka, Banking Industry

1. Introduction

Profitability and liquidity are the essential indicators of the corporate healthiness and performance of all ventures (Eljelly, 2004). Thus, investors will primarily refer such indicators when making investment decisions. Financial liquidity generally deals with the current asset and current liability, means that the extent which the firm has the ability to meet the short-term obligations by the cash in hand and the near-cash assets. Generally, current asset includes cash, bank, receivables, inventories and any other short-term investments whereas current liability comprise of creditors, accruals and any other immediate short term payment obligations. If the most of the funds are allocated to the current assets then, those assets will be unavailing for the investment in order to enhance the profitability of the firm. Thus, the firms especially the banking sector need to keep the right balance of the liquidity neither lack nor excess, otherwise they will suffer to carry out day to day operations of a business smoothly or the profitability will be reduced. Profitability refers to the remaining portion after deducting all the relevant expenses from the generated revenue to the financial year in concern. Profitability ratios are the essential indicator of not only the firm's ability to pay the dividends and re-pay the amount of investment but also, share price appreciation in the market. Thus, present and future investor and the managers will monitor the profitability of the firm to direct their future plans. Liquidity and profitably are contradictory. Means that, increase on one will lead to the decrease in another.

According to the Sri Lankan context, regretfully, subsequent governments have consistently lowered the tax to GDP ratio because they have failed to acknowledge this reality and have not put in place long-term policy measures to maintain adequate tax collection (TAX). The government must borrow money to close the budget deficit—the difference between revenue and expenditure—when tax revenue is insufficient to cover government expenses (TAX). But, Sufficient tax income is crucial for any nation since it has a direct impact on social welfare, public investment, and long-term growth (Adam and Bevan, 2014; Gale and Samwick, 2016; Rudolf, 2015).

Thus, this research paper attempts primarily analyse the impact of the liquidity on the profitability of the banking industry in Sri Lanka. Also, the descriptive analysis is performed to demonstrate the movement of the selected variables of the banking industry in Sri Lanka during the period of 2012-2022.

Objective of the study

- To explain the trend of the income tax of the banking industry in Sri Lanka during the period of 2012 to 2022
- To explain the movement of the liquidity and profitability of the banking industry in Sri Lanka during the period of 2012 to 2022
- To recognise the impact of the liquidity on the profitability of the banking industry in Sri Lanka.

2. Literature Review

Using a sample of Saudi Arabian joint stock enterprises, this study experimentally investigates the relationship between profitability and liquidity as determined by the current ratio and cash gap (cash conversion cycle). The profitability of the company and its liquidity level, as shown by the current ratio, were found to be significantly inversely correlated by the study using regression and correlation analysis. Businesses with higher current ratios and longer cash conversion cycles exhibit a stronger correlation with this connection. However, the study discovered that, when it comes to industry-level liquidity measurements, the cash conversion cycle or cash gap is more significant than the current ratio, which has an impact on profitability. At the industry level, profitability is also found to be significantly impacted by the size variable. Lastly, the outcomes remain consistent over (Eljelly, 2004).

Bordeleau and Graham (2010) looked on how liquidity affected bank profitability. They discovered that there is a threshold beyond which, all other things being equal, a bank's profitability decreases when it holds more liquid assets. This suggests that there is a nonlinear relationship between profitability and the amount of liquid assets held by banks.

The findings indicate that listed banks increased their amounts of both liquid and illiquid assets between 2005 and 2010. In the years between 2005 and 2010, listed banks' liquid asset holdings increased, but their overall liquidity decreased. In 2007, the listed banks' liquidity was at its lowest point. Between 2005 and 2010, the listed banks' absolute profit margins increased. In spite of this, between 2005 and 2010, their profitability was actually declining. The study found a marginally positive correlation between the average listed bank in Ghana's profitability and liquidity. Utilising Temporary Investment Ratios (TIR) and Return on Assets (ROA) according to Lartey, Antwi and Boadi (2013). According to Niresh's (2012) investigation of the trade-off between liquidity and profitability, there is no discernible correlation between the two among Sri Lanka's listed industrial companies.

Ajanthan (2013) looked at the relationship between trading businesses' profitability and liquidity in Sri Lanka. The results indicate a noteworthy correlation between liquidity and profitability in Sri Lanka's listed trading enterprises. The study indicates that Return on assets (ROA), a measure of profitability, and the current ratio have a strong positive correlation. The Acid test ratio and profitability as determined by return on assets (ROA) do not clearly correlate. Return on capital employed does not significantly positively correlate with profitability as determined by return on assets (ROA). The purpose of this study was to determine if the quick ratio, which measures liquidity, significantly affects the return on asset (ROA) and profitability of Jordanian banks. The Amman Stock Exchange (ASE) financial reports from 15 Jordanian banks listed between 2005 and 2011 were used in the study. The study found that the independent variable quick ratio significantly affects the dependent variable return on asset (ROA). This indicates that liquidity as measured by the quick ratio has a major impact on Jordanian banks' profitability as measured by return on assets (ROA) (Nimer, Warrad & Omari, 2015).

Based on data from 15 manufacturing businesses listed between 2012 and 2016, the analysis was conducted over a five-year period on the Colombo Stock Exchange. The study employed correlation and regression analysis in conjunction with descriptive statistics. The results indicate that, among Sri Lanka's listed manufacturing businesses, liquidity ratios, namely the Quick ratio, show a positive and substantial relationship with company profitability (Madushanka & Jathurika, 2018). In order for any company to sustain this link while carrying out day-to-day activities, the current study intends to disclose the relationship between liquidity and profitability. The findings indicate that only the liquid ratio significantly affects ROA, but not ROE or ROI. They also demonstrate that while ROI is significantly impacted by current ratios, quick ratios, and liquid ratios, ROE is not significantly affected by any of these three ratios as per Saleem, Q. & Rehman, R. U. (2011).

The study's findings indicate that there is a substantial correlation between CR and QR and Return on Average Equity. At the 5% level of significance, ROE and ICR are correlated, and at the 1% level of significance, Return on Capital employed and Earnings before Depreciation Interest and Taxes are correlated. At the 5% significance level, Return on Total Assets has a positive correlation with Return on Capital employed, earning before Depreciation Interest and Taxes, Return On Average Capital Employed, and Interest Cover Ratio. The financial positions of businesses are significantly influenced by profitability ratios as well (Megaladevi, 2018). There was a significant positive correlation between current ratio and profitability whereas acid ratio and profitability are not clearly correlated. The relationship between profitability and return on capital employed is not statistically significant. Profitability and current ratio have a strong positive association (Ehiedu, 2014).

3. Research Methodology

This is a quantitative study, focuses to collect the data from secondary sources like annual reports of the selected banks listed in the Colombo Stock Exchange from the period of 2012-2022. Liquidity ratios have been operationalized as current and liquidity ratio and the profitability ratio is measured using EBITDA stands or Earnings before Interest, Taxes, Depreciation, and Amortization. Operationalization of the variables has been shown in the Table 1.

Table 1: Operationalization of Liquidity and Profitability Ratios

Liquidity Ratios	
Current Ratio	Current Asset (CA)/ Current Liability (CL)
Liquidity Ratio	(Cash in hand + Short term investment)/ Current Liability
Profitability Ratio	
EBITDA Margin	EBITDA = Operating Income (EBIT) + Depreciation + Amortization. EBITDA Margin = EBITDA / Net Sales

Conceptualization and Hypotheses

Figure 1 depicts the conceptualization of the study. Liquidity ratios namely Current and liquidity ratio are considered as the independent variable whereas the profitability ratios namely EBITDA Margin is considered as the dependent variable.

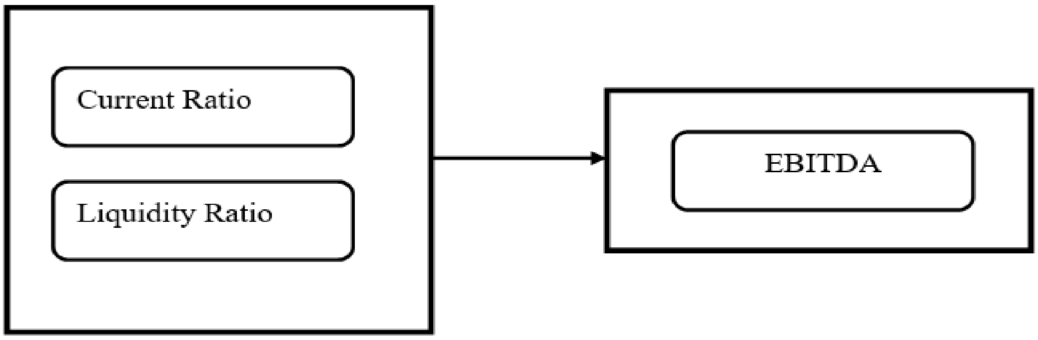

Figure 1: Conceptual Diagram

Based on the conceptualization, the below mentioned hypothesis is formed.

H1 -There is a significant impact of Liquidity Ratio on the profitability of the banking industry in Sri Lanka.

> H1a -There is a significant impact of Liquidity Ratio on EBITDA of the banking industry in Sri Lanka.
>
> H1b -There is a significant impact of Current Ratio on EBITDA of the banking industry in Sri Lanka.

4. Findings and Discussion

Descriptive Statistics:

This study uses descriptive analysis to explain the movement of factors of the banking industry in Sri Lanka during the period of 2012 to 2022. To achieve the objective of explain the trend of the income tax, the below drawn graphs were used

Trend of the Income Tax

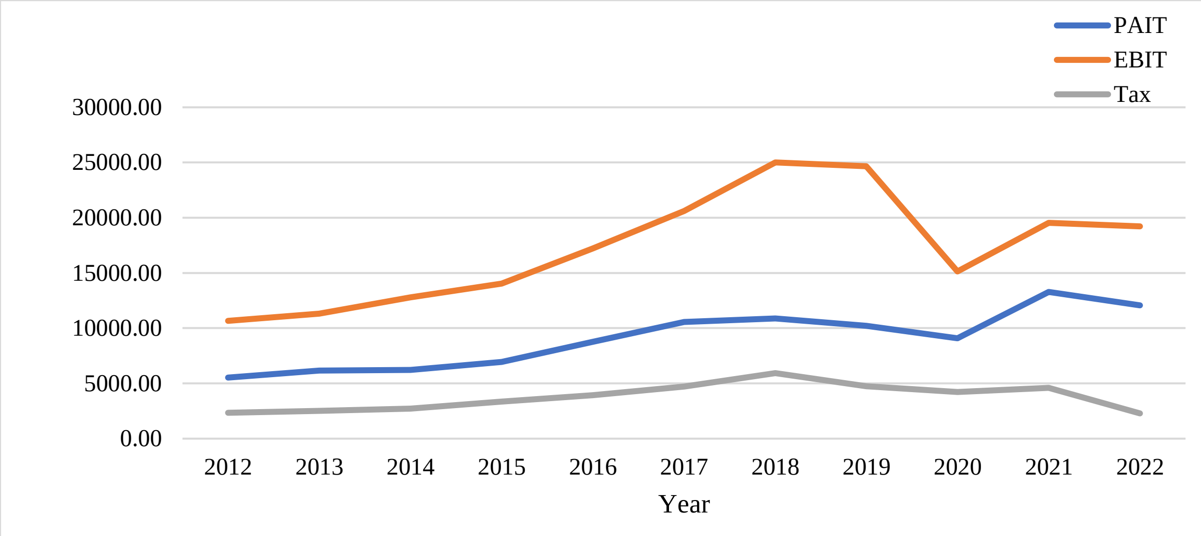

Figure 2: Trend of Tax, EBIT and PAIT

As per figure 2, Profit after interest and tax (PAIT), Earning before interest and tax (EBIT) and Income tax details were used to show the movement of the income tax. As demonstrated, the income tax has decreasing rate of increment during the period of 2012 to 2018. From 2018, it has shown a slight declining trend up to 2022. Therefore, it can be predicted that the Sri Lankan system need to focus on developing the regulated tax policy in order to ensure the sufficient societal welfare facilities and long-term growth. Specifically, the income tax contribution from the banking industry was higher in the period of 2015 to 2019 than the period of 2020 to 2022.

The below mentioned figure 3 has been used to explain the movement of the liquidity and profitability of the banking industry in Sri Lanka during the period of 2012 to 2022.

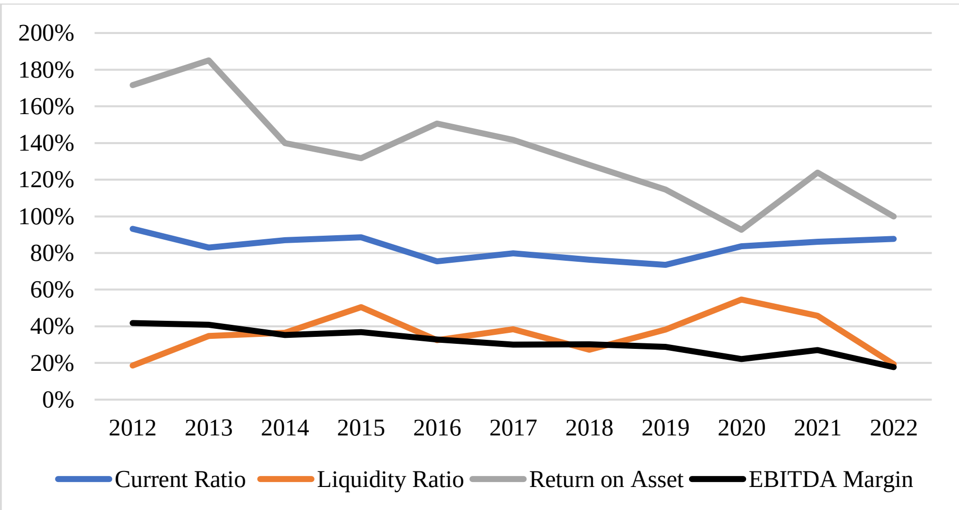

Figure 3: Trend of Liquidity and Profitability

ROA & EBITDA Margin has shown decreasing movement from 2012 to 2022 whereas comparatively EBITDA Margin has not shown a rapid decline. Current Ratio and Liquidity Ratio has shown slight fluctuating trend.

Regression

Regression analysis were performed through model summary, ANOVA and coefficient statistics to find the impact of the current ratio and liquidity ratio on profitability using EBITDA Margin.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.358[a]	.128	.095	19.03729%
a. Predictors: (Constant), Liquidity Ratio, Current Ratio				

Table 3: ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2768.337	2	1384.168	3.819	.028[b]
	Residual	18845.754	52	362.418		
	Total	21614.091	54			
a. Dependent Variable: EBITDA Margin						
b. Predictors: (Constant), Liquidity Ratio, Current Ratio						

Table 4: Coefficients

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	51.707	7.846		6.590	.000
	Current Ratio	-.197	.074	-.407	-2.671	.010
	Liquidity Ratio	-.115	.057	-.306	-2.009	.050
a. Dependent Variable: EBITDA Margin						

As per the table 2, Liquidity and current ratio explain 12.8% of the variation on the EBITDA. Means that model is statistically significant. Table 3 explain that the fitted model is significant at 95% confidence level (p value 0.028<0.05) further Current Ratio and Liquidity ratios has the impact of – 0.197 (P value 0.010<0.05), and – 0.115 (P value, respectively on the EBITDA. Current Ratio and Liquidity Ratio shows the significant impact at 5% significant level.

Research Model

$Y = \alpha + \beta_{LR} + \beta_{CR} + \varepsilon_i$

Whereas;

Y = Profitability

A = constant

LR = Liquidity Ratio

CR = Current Ratio

ε_I = Error

Profitably = $-0.197_{LR} + - 0.115_{CR} + \varepsilon_i$

Hypotheses Testing

Hypothesis	Beta value	P value	Accepted/ Rejected	Reference
H1a -There is a significant impact of Liquidity Ratio on EBITDA of the banking industry in Sri Lanka.	-.197	0.010	Accepted	Eljelly, 2004, Bordeleau and Graham (2010)
H1b -There is a significant impact of Current Ratio on EBITDA of the banking industry in Sri Lanka.	-.115	0.050	Accepted	

5. Conclusion & Recommendation

In the pursuit of understanding the impact of liquidity on profitability of banking industry in Sri Lanka, this research embarked on a comprehensive exploration. Our focus encompassed income tax and their intricate determinants with profitability and contribution for societal welfare facility. The conceptual model applied in this study offered a solid framework to predict the profitability for the banking industry further as per the finding we can recommend that the adequate liquidity need to be maintain in order to maintain short term obligation. The excess level of liquidity will reduce the profitability of the banking industry thus the firm should have a balance to ensure smooth operation.

6. Direction for Future Studies

Standards for measuring the liquidity suggest different components like financial and non-financial view in financial performance indicators of banking industry, therefore future researchers can have in depth investigation on liquidity measures since tradeoff between liquidity and profitability plays a crucial role in their operations. Future research can be involved with the different methodology.

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