



LIQUIDITY MANAGEMENT AND PROFITABILITY: A CASE STUDY ANALYSIS OF LISTED MANUFACTURING COMPANIES IN SRILANKA

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ABSTRACT

The study sought to establish the relationship between the profitability and the liquidity of listed manufacturing companies in Sri Lanka. The major aims of the study were to find empirical evidence of the degree to which effective liquidity management affects profitability in listed manufacturing companies and how manufacturing companies can enhance their liquidity and profitability positions. Analysis was based on data extracted from annual reports of the companies for the relevant period. Correlation and regression analysis respectively were employed to examine the nature and extent of the relationship between the variables and determine whether any cause and effect relationship between them. The study covered 26 listed manufacturing companies in Sri Lanka over a period of past 5 years from 2012 to 2016. After data were collected from secondary sources of those samples, these data were presented and analyzed by using correlation and regression tools. In this research, the researcher concluded about the hypothesis providing, then clarify the research findings, after that the researcher formed a final conclusion. Some important suggestions also were given for the future studies. Further, the liquidity has negative and significant impact on profitability of manufacturing companies in Sri Lanka. The finding is more useful to finance decision makers of company for taking sound decisions on proper tradeoff between liquidity and profitability.

Key Words: Current ratio, Quick ratio, Liquidity, Profitability and Listed manufacturing companies.

INTRODUCTION

Profitability and liquidity are two important variables which give information about the performance of any business entity. For long-term survival and healthy growth both profitability and liquidity should go parallel to each other. Profitability is one of the major goals of any business. Without being profitable it is not possible for a business to survive and the business growth is difficult. To generate profit a business needs short-term funds to fulfill its day to day needs in operations and other requirements. Business will be more profitable when this short-term need of funds is generated by business operation not through external debts. So the liquidity tells about the business capability to meet short-term need of funds by the business and profitability tells about the profit generated from the operations of business.

Profitability plays a vital role within the structure and development of firm as a result of it measures the performance and success of a firm. It also enhances the reputation of a firm.

Maximizing the profits of firm is one in all the most objectives of managers. The main objective of a business is maximization of profit which is able to cause maximization of shareholders wealth.

In a competitive marketplace, how to achieve a satisfactory level of profitability must be learned by the business owners. Profitability is the key financial ratio to measure the performance of the company. It is the main aspect in a company's financial reporting. The profitability of a company shows an ability to generate earnings for a certain period at a rate of sales, assets and certain of capital stock. Understanding the determinant profitability is the key factor that helps managers in developing an effective profitability strategy for the company.

Profitability of a firm or an industry is very important as it shows the results achieved over a time period. Firm's profitability is dependent of the various factors. The present study has undertaken how the liquidity management determines firm's profitability in listed manufacturing companies.

Literature Review

Various studies attempted to proper suitable landing ground for business in dealing with this ever-lingering liquidity & profitability nexus. The relationship between liquidity and profitability has been well documented in developed countries as well as developing countries including Sri Lanka in financial and non-financial companies with various findings.

Abuzarand Eljelly (2004) evaluated the relation between profitability and liquidity, as measured by current ratio and cash gap (cash conversion cycle) on a sample of joint stock companies in Saudi Arabia. The study found significant negative relation between the firm's profitability and its liquidity level, as measured by current ratio. This relationship is more evident in firms with high current ratios and longer cash conversion cycles. At the industry level, however, the study found that the cash conversion cycle or the cash gap is of more importance as a measure of liquidity than current ratio that affects profitability

Chakraborty (2008) evaluated the relationship between working capital and profitability of Indian pharmaceutical companies. There were two distinct schools of thought on this issue: according to one school of thought, working capital is not a factor of improving profitability and there may be a negative relationship between them, while according to the other school of thought, investment in working capital plays a vital role to improve corporate profitability, and unless there is a minimum level of investment of working capital, output and sales cannot be maintained - in fact, the inadequacy of working capital would keep fixed asset inoperative.

Singh (2008) found that the size of inventory directly affects working capital and its management. Suggested that inventory was the major component of working capital, and needed to be carefully controlled.

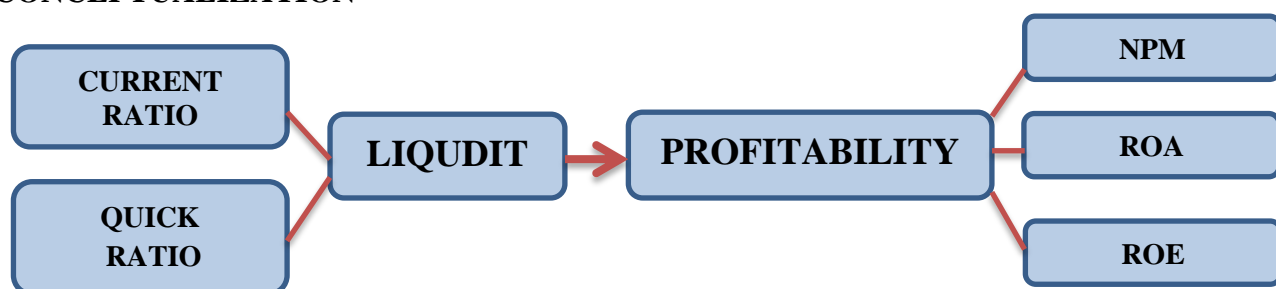
Walt (2009) opines that profitability is more important because profit can usually be turned into a liquid asset, and that liquidity is also important but does not mean that the company is profitable. Don (2009), while acknowledging the relative importance of both, submits that liquidity is more important because it has to do with the immediate survival of the company.

Velampy and Nimalathan (2010) evaluated the association between firm size and profitability of all the branches of Bank of Ceylon and Commercial Bank of Ceylon Ltd over a period of 10 years from 1997 to 2006. Findings reveal that, there is a positive relationship between firm size and profitability in Commercial Bank of Ceylon Ltd, but there is no relationship between firm size and profitability in Bank of Ceylon.

Ajanthan (2013) investigated the relationship between liquidity and profitability of trading companies in Sri Lanka. The study covered 08 listed trading companies in Sri Lanka over a period of past 5 years from 2008 to 2012. Correlation & regression analysis and descriptive statistics were used in the analysis and findings suggest that there is a significant relationship exists between liquidity and profitability among the listed trading companies in Sri Lanka.

Priya and Nimalathasan(2013) examined the effect of changes in liquidity levels on profitability of manufacturing companies in Sri Lanka for the period from 2008 to 2012. Overall finding from correlation and regression analysis is that there is a significant relationship between liquidity and profitability among the listed manufacturing companies in Sri Lanka. From selected variables in separate investigation, Inventory Sales Period (ISP), Current Ratio (CR) and Operating Cash Flow Ratio (OCFR) are significantly correlated with Return on Asset (ROA) while Operating Cash Flow Ratio (OCFR) and Creditors Payment Period (CPP) are significantly correlated with Return on Equity (ROE)

CONCEPTUALIZATION



Where:

NPM- Net Profit Margin

ROA- Return On Assets

ROE- Return On Equity

HYPOTHESES OF THE STUDY

The following hypotheses were formulated in this study.

H1: There is relationship between liquidity and Net profit margin

H2: There is relationship between liquidity and ROA

H3: There is relationship between liquidity and ROE

Hypothesis is evaluated based on the correlation analysis

METHODOLOGY

DATA SOURCE

The main source of information gathered in this study is primarily based on secondary data collection over the sample period of 2012 to 2016. The data utilized in this study is extracted from the comprehensive income statements and financial position of the sample manufacturing companies listed in Colombo Stock Exchange (CSE) database.

Sampling design

The sample of this study composed of listed manufacturing companies from Manufacturing Sector of Colombo Stock Exchange (CSE) for the period of 2012-2016. The scope of the study is listed manufacturing companies on Colombo Stock Exchange (CSE), Sri Lanka. Thirty eight companies are listed under manufacturing sectors. Hence, out of thirty eight, only twenty six companies are selected for the study purpose as random.

MODE OF ANALYSIS

In the present study, we analyze our data by employing correlation; multiple regressions & descriptive statistics. For the study, entire analysis is done by personal computer. A well-known statistical package like 'Statistical Package for Social Sciences' (SPSS) 22.0 Version was used in order to analyze the data.

It is important to note that the Profitability depend upon Current Ratio (CR); Quick Ratio (QR) & Liquidity Ratio (LR). The following two models are formulated to measure the impact of Liquidity and Profitability.

$$\text{ROE} = a_0 + a_1 \text{CR} + a_2 \text{QR}$$

$$\text{ROA} = b_0 + b_1 \text{CR} + b_2 \text{QR}$$

$$\text{NPM} = c_0 + c_1 \text{CR} + c_2 \text{QR}$$

Where,

$a_1, a_2, b_1, b_2, c_1, c_2$ are the regression co-efficient

NPM –Net profit Margin

ROE-Return on Equity

ROA- Return on Assets

CR - Current Ratio

QR -Quick Ratio

RESULTS & ANALYSIS

Descriptive Statistics

Table1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
CURRENT	130	.66	26.08	2.4098	3.10840
QUICK	130	.30	25.44	1.5812	2.50149
NPM	130	-2.06	1.53	.0637	.33162
ROA	130	-27.95	26.64	5.6013	9.34975
ROE	130	-177.95	80.73	8.5858	23.33623
EPS	130	-5.94	145.08	10.3526	20.01726
Valid N (list wise)	130				

Descriptive statistics describe patterns and general trends in a data set. It is used to examine variables at a time. In accordance with the results of the descriptive statistics shown in the Table minimum value, maximum value, means and standard deviation of liquidity ratio, net profit ratio, return on assets, and return on equity of manufacturing companies.

The criteria used for measuring profitability including return on equity, net profit margin & return on assets averaged 8.5858, 0.0637 & 5.6013 respectively. The Range (Max - Min) values of profitability measures were found to be higher than those of liquidity measures.

Thus, reveal the high volatility of profitability measures used in the study. Furthermore, the mean values of current ratio and quick ratio were 2.4098 and 1.5812 respectively. The standard deviation of current ratio & quick ratio are respectively 3.10840 & 2.50149.

Correlation Analysis

		CURRENT	QUICK	NPM	ROA	ROE
CURRENT	Pearson Correlation	1				
	Sig. (2-tailed)					
QUICK	Pearson Correlation	.930**	1			
	Sig. (2-tailed)	.000				
NPM	Pearson Correlation	-.254**	-.122	1		
	Sig. (2-tailed)	.004	.167			
ROA	Pearson Correlation	-.166	-.072	.782**	1	
	Sig. (2-tailed)	.060	.414	.000		
ROE	Pearson Correlation	-.084	-.043	.444**	.646**	1
	Sig. (2-tailed)	.339	.628	.000	.000	

In these result, the Pearson correlation between current ratio and net profit margin is about -0.254, which indicate that there is a negative moderate relationship between variables. The p-values of the correlation between current ratio and net profit margin are less than significant level of 0.05, which indicates that the correlation of coefficient is significant between variables.

In these result, the Pearson correlation between quick ratio and net profit margin is about -0.122, which indicate that there is a negative weak relationship between variables. The p-values of the correlation between current ratio and net profit margin are higher than significant level of 0.05, which indicates that the correlation of coefficient is insignificant between variables.

The Pearson correlation between current ratio and ROA is about -1.66, which indicate that there is a negative weak relationship between variables. The p-values of the correlation between current ratio and ROA are higher than significant level of 0.05, which indicates that the correlation of coefficient is insignificant between variables.

In these result, the Pearson correlation between quick ratio and ROA is about -0.072, which indicate that there is a negative weak relationship between variables. The p-values of the correlation between current ratio and net profit margin are higher than significant level of 0.05, which indicates that the correlation of coefficient is insignificant between variables.

Hypotheses Testing

H1 There is a relationship between liquidity and Net profit margin. Accepted

H2 There is a relationship between liquidity and ROA. Rejected

H3 There is a relationship between liquidity and ROE. Partially Accepted

Findings of the Study

According to the ratio analysis, Net Profit (NP) of manufacturing companies was increasing this ratio every year than previous year of this study. NPM of Manufacturing companies was a liner increase over the years from 2012 to 2016. Return on Assets (ROA) of manufacturing companies was increasing every year than previous year of this ratio.

Return on Equity (ROE) of manufacturing companies has smooth increased of this ratio over the period of this study.

There is no any sequence changes of Liquidity Ratio (LR) According to the correlation analysis, there is a strong negative relationship ($r=-0.254$) between Liquidity ratio and Net profit margin in 5% significant level. Otherwise there is no any relationship between Liquidity and ROA& ROE.

CONCLUSION&RECOMMENDATION

Working capital management is important part in firm financial management decision. The optimal of working capital management is could be achieve by firm that manage the tradeoff between profitability and liquidity. The purpose of this study is to investigate the liquidity-management efficiency and liquidity-profitability relationship. Results of this study found that correlation results are significantly negative associated to the firm profitability. Thus, firm mangers should concern on inventory and receivables in purpose of creation shareholder wealth. Consequently, the study proffers the following for policy and investment decisions:

LIMITATIONS & SCOPE FOR FURTHER RESEARCH:

The study suffers from certain limitations which are mentioned below.

1. As the study is purely based on listed manufacturing companies, so the results of the study are only indicative and not conclusive.
2. Furthermore, data representing the period of 5 years were used for the study.

In addition, the findings of this study imply areas that need further study. The scope of this study covers the operations of only manufacturing companies listed in Colombo Stock Exchange for the period of five years. Giving enough time and resources it is possible to attempt to study some other listed companies in Sri Lanka over a long period of time and using different statistical methods in order to have a more comprehensive result. The analyses and findings this study show that there are other factors than the independent variables used for this study that affect profitability. Research could be conducted to identify those other factors so as to enhance the profit generating capabilities of the companies.

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REFERENCES:

- [1] Assaf Neto, "Finanças Corporativas e Valor. São Paulo: Atlas," 2003.
- [2] A. Ajanthan, "A Nexus between Liquidity & Profitability: A Study of Trading Companies in Sri Lanka," *European Journal of Business and Management*, Vol 5(7), pp.221-237, 2013.
- [3] P. Bourke, "Concentration and Other Determinants of Bank Profitability in Europe," *Journal of Banking and Finance*, pp.65-80, 1989.
- [4] T.A.N.R. Jayarathne, "Impact of Working Capital Management on Profitability: Evidence from Listed Companies in Sri Lanka," *Proceedings of the 3rd International Conference on Management and Economics, Oral Presentations*, pp. 269-274, 2014.
- [5] S.A. Jude Leon, "The Impact of Working Capital Management on Profitability of the Listed Firms in Sri Lanka," *Global Journal of Commerce and Management Perspective*, Vol.2(6), pp.98-102, 2013.
- [6] K. Lyroudi, D. McCarty, J. Lazaridis, and T. Chatzigiagos, "An Empirical Investigation of Liquidity: the Case of UK Firms," Presented at the Annual Financial Management Association Meeting in Orlando, October 1999.
- [7] N. E. A. B. Mohamad, and N. B. M. Saad, "Working Capital Management: The Effect of Market Valuation and Profitability in Malaysia," *International Journal of Business and Management*, 5(11), 2010.
- [8] A.N. Munther, W. Lina, and A.O. Rania, "The Impact of Liquidity on Jordanian Banks Profitability Through Return on Assets" *Interdisciplinary Journal of Contemporary Research in Business*, Vol 5, No 7, pp.70- 76, 2013.
- [9] B. Nimalathasan, "Working Capital Management and its Impact on Profitability: A Study of Selected Listed Manufacturing Companies in Sri Lanka," *Information Management*, pp.76-82, 2010.
- [10] J.A. Nireesh, "Trade-off between Liquidity & Profitability: A Study of Selected Manufacturing Firms in Sri Lanka," *Journal of Arts, Science & Commerce*, Vol. 3 Issue 4 (2), pp.34-40, 2012.

- [11] V.O. Ongore, and G.B. Kusa, "Determinants of Financial Performance of Commercial Banks in Kenya," *International Journal of Economics & Financial Issues (IJEFI)*, Vol. 3 Issue 1, 237-252, 2013.
- [12] K. Priya, and B. Nimalathasan, "Liquidity Management and Profitability: A Case Study of Listed Manufacturing Companies in Sri Lanka," *International Journal of Technological Exploration and Learning (IJTEL)*, Vol 2 (4), pp.161-165, 2013.
- [13] A. Raheman, and M. Nasr, "Working Capital Management and Profitability: Case of Pakistani Firms," *International Review of Business Research Papers*, Vol.3 No.1, pp.279 – 300, 2007.
- [14] B. Short, "The Relationship between Commercial Bank Profit Rates and Banking Concentration in Canada, Western Europe and Japan," *Journal of Banking and Finance*, Vol. 3, pp.209-219, 1979.
- [15] P. Shrimal, S. Michael, and C. Zahida, "Determinants of Commercial Bank Profitability: South Asian Evidence," *Asian Journal of Finance & Accounting*, Vol. 5, No. 1, pp.365-380, 2013.
- [16] T. Velnampy, and R. Kajanathan, "Cash Position and Profitability of Telecommunication Sector in Sri Lanka," *Greener Journal of Social Sciences*. Vol. 3 (6), pp.324-333, 2013.
- [17] C.L. Victor, A. Samuel, and K.B. Eric, "The Relationship between Liquidity and Profitability of Listed Banks in Ghana," *International Journal of Business and Social Science*, Vol. 4 No. 3, pp.48- 56, 2013.
- [18] V.E.I.W., Weersainghe, and T.R. Perera, "Determinants of Profitability of Commercial Banks in Sri Lanka," *International Journal of Arts and Commerce*, Vol. 2, No. 10, pp.141-170, 2013.