A Comparative study on Working Capital Management efficiency of Listed Trading Companies In Sri Lanka

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ABSTRACT

Working capital is the flow of ready funds necessary for the working of a concern. The working capital management plays an important role for success or failure of firm in business because of its effect on firm's profitability as well on liquidity. The study is an attempt to analyze the efficiency of working capital management of listed trading companies during 2004 to 2010. Instead of using common working capital ratios, performance index, utilization index and overall efficiency index are calculated to measure efficiency of working capital management.. The study indicates that overall performance of Trading companies were good.

Key Words: Efficiency of working capital management, performance index, utilization index and efficiency index

INTRODUCTION

Efficient management of working capital plays an important role of overall corporate strategy in order to create shareholder value. The working capital is the life-blood and nerve centre of a business firm. The importance of working capital in any industry needs no special emphasis. No business can run effectively without a sufficient quantity of working capital. It is crucial to retain right level of working capital. Working capital management is one of the most important functions of corporate management. A business enterprise with ample working capital is always in a position to avail advantages of any favorable opportunity either to buy raw materials or to implement a special order or to wait for enhanced market status. Working capital can be utilized for the payment of lease, employee's payroll, and pretty much any other operating costs that are involved in the everyday life of business. Even very successful business owners may need working capital funds when the unexpected circumstances arise. The overall success of the company depends upon its working capital position. So, it should be handled properly because it shows the efficiency and financial strength of company.

Working capital management is highly important in firms as it is used to generate further returns for the stakeholders. When working capital is managed improperly, allocating more than enough of it will render management non-efficient and reduce the benefits of short term investments. On the other hand, if working capital is too low, the company may miss a lot of profitable investment opportunities or suffer short term liquidity crisis, leading to degradation of company credit, as it cannot respond effectively to temporary capital requirements. Efficient management of working capital means

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management of various components of working capital in such a way that an adequate amount of working capital is maintained for smooth running of a firm and for fulfillment of objectives of liquidity and profitability. But, it is very difficult for the management too to estimate working capital properly because, amount of working capital varies across firms over the periods depending upon the nature of the business, nature of raw material used, process technology used, nature of finished goods, degree of competition in the market, scale of operation, credit policy etc. Therefore, a significant amount of fund is required to invest permanently in the form of different current assets.

Keeping in view the pragmatic importance of working capital management in finance, an attempt is made in this study to look into the working capital management of seven Listed Trading companies in Sri Lanka. The specific purposes of the study is to examine the efficiency of working capital management practices of listed Trading Companies in Sri Lanka .

LITERATURE REVIEW

The corporate finance literature has traditionally focused on the study of long-term financial decisions. However, short-term assets and liabilities are important components of total assets and needs to be carefully analyzed. Management of these short-term assets and liabilities warrants a careful investigation since the working capital management plays an important role for the firm's profitability and risk as well as its value (Smith 1980). The optimal level of working capital is determined to a large extent by the methods adopted for the management of current assets and liabilities.

A study on working capital management of horticulture industry in himachal Pradesh by Joginder Singh Dulta (2001) observed the size of current assets and current liabilities with all variations, registered a slight increase, but due to inefficient use of the various components of working capital of Himachal Pradesh Horticulture Produce Marketing and Processing Corporation Ltd, the current liabilities increased proportionately at a faster rate than current assets and net working capital position was worsened continuously.

P. Saravanan (2001) had undertaken a research on working capital management in non-banking finance companies. Data from 1987-88 to 1996-97 for 10 non-banking finance companies had been analyzed. He observed that, medium and large size non-banking companies have efficiently made use of bank credit to finance their working capital requirements.

Dr. D. Mukhopadhyay conducted a research study to examine working capital management practices and the problems faced by the firms in working capital management process particularly in heavy engineering industries. A sick engineering firm named "M/S Heavy Engineering Company Limited" had been selected and data from 1993-94 to 2002-03 had been analyzed. He reported that, the company has under its possession huge real estate including land and the firm holds legacy of culture and heritage of more than two hundred years of existence in industrial map of the country and consequently, it has built up "Goodwill" to a remarkable extent. Thus the company may make revaluation of real estate including land and other assets and make valuation of goodwill and disposal of idle assets and selling off certain percentage of company goodwill can enable the company infuse fresh blood in the form of working capital to run the show.

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R. Sivarama and Prasad (2001) conducted a research study on working capital management of paper industries in India. Their Sample consisted of 21 selected paper mills, including 9 large, 5 medium and 7 small scales for the period from 1983-84 to 1992-93. They reported that the chief executives properly recognized the role of efficient use of working capital in liquidity and profitability, but in practice they could not achieve it. Again they reported a clear reveal of a suboptimum utilization of working capital in paper industry.

Jain, Yadav, Surendra (2007), made a study on Working capital management practices of public sector enterprises in India. The study was based on an analysis of 13 year period data from 1991 to 2003 of 137 public sector enterprises and stated that, a business organization has to be conscious that inadequate working capital can disrupt its operations leading illiquidity. At the same time excessive working capital is also not desirable since it adversely affects profitability.

Sushma Vishnani and Bhupesh Kr. Shah (2007) had taken an Empirical Study on impact of Working Capital Management Policies on Corporate Performance by examining coefficient of correlation and regression analysis between profitability ratios and some key working capital policy indicator ratios of 23 Indian Consumer Electronics companies during the period 1994–95 to 2004–05. They concluded that, no established relationship between liquidity and profitability exists for the industry as a whole. The various companies of the industry depicted different type of relationship between liquidity and profitability, although majority of them revealed positive association between liquidity and profitability. But working capital management policies and practices have profound impact on a company's profit performance.

Recently (2008), a study on liquidity management of TISCO Ltd. had been taken by Sudipta Ghosh. Data from 1996 to 2000-01 had been analyzed. He indicated that, although the degree of association between liquidity and profitability of the company was positive, the degree of influence of liquidity on its profitability was low and insignificant. Dr. Santanu Kumar Ghosh and Santi Gopal Maji to examine the efficiency of working capital management practices of 20 large cement companies during 1992-93 to 2001-02 undertook a research study. They had analyzed data following an alternative ratio model developed by Prof. Hrishikesh Bhattacharya (1997). Here, I also followed same technique to analyze and interpret data.

OBJECTIVES OF THE STUDY

The following is the specific objective

- To analyse the firm's efficiency in working capital management in the Trading sector listed in CSE

METHODOLOGY:

The present study is based on seven listed trading Companies in Sri Lanka. The relevant secondary data have been collected from online CSE for the period of 7 years from the year 2004 to 2010.

For measuring the efficiency of working capital management, researcher has used some unusual techniques instead of using some common working capital management ratios. For measuring the overall efficiency of working capital management, I have followed following steps:

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Step 1: Calculations of Performance index of working capital management: I have calculated performance indices of seven companies for 7 years using the formula suggested by Prof. Hrishikas Bhattacharya (1997), in 'Total management by ratios'.

$$PI_{wcm}= \frac{I_s \sum_{i=1}^{n} \frac{W_{i(t-1)}}{W_{it}}}{N}$$

Where,

I_s= Sales index defined as: $\frac{S_t}{S_{t-1}}$,

W_i= Individual group of current assets

N= Number of current assets group

And, i= 1, 2, 3…N

Step 2: Calculations of the utilization index of working capital: I have calculated working capital utilization index using following formula:

$$\mathbf{UI_{wcm}}=\frac{A_{t-1}}{A_t}$$

Where,

$$A=\frac{current\ assets}{total\ income}$$

It indicates the ability of the firm in utilizing its current assets as a whole for the purpose of generating income.

Step 3: Efficiency Index of working capital management (EI_{wcm}) is the product of Performance Index and Utilization Index.

$$EI_{WCM}= PI_{wcm} \text{ X } UI_{wcm}$$

EMPIRICAL ANALYSIS:

Performance index of WCM

Performance Index represents average performance index of the various components of current assets. If performance index of a firm is more than 1, it indicates the firm managed their working capital efficiently. It means the proportionate rise in sales (income) is more than the proportionate rise in current assets. Table 1 represents the Average performance year index , utilization index and Efficiency index of seven listed trading companies.

Table 1 Average Indices of Seven Companies

year	2004	2005	2006	2007	2008	2009	2010
PI	0.827721	1.129478	0.914151	1.005065	3.454914	1.177907	0.414198
UI	1.105527	0.549234	0.38662	1.18203	4.625796	0.77464	0.21173
EI	0.708727	0.620348	0.353429	1.188017	15.98173	0.912454	0.790153

Average performance indices of seven companies **(Table-1)** show that the performance indices were more than 1 in 4 periods out of 7. In 2005 ,2007 and 2008 average of performance index of seven compaies show good condition .On the other hand, the year

2004 and 2010 proved to be the worst years for those seven companies as average shows 0.827721 and 0.414198 respectively.

Utilization index is the indicator of the ability of the company in utilizing its current assets as a whole for the purpose of generating Income. If proportionate increase in income is greater than proportionate increase in current assets, Index would be greater than 1, which is the sign of improvement and vice versa. In the study period, overall group performance of the companies was good.. Table 1 show 2004, 2007 and 2008 are the best years for the group of companies. In year2004, 2007 and 2008, UI is greater than 1. On the other hand, the year 2005 2006, 2009 and 2010 proved to be the worst years for those seven companies as average shows 0.549234, 0.38662 0.77464, and 0.21173respectively.

Efficiency Index is the product of Performance index and Utilization index. It is the measure of ultimate efficiency in working capital management. 2007 and 2008 are the years when group of companies efficiency was best out of my study period of 7 years. On the other hand, the year 2004, 2005, 2006, 2009 and 2010 proved to be the worst years for those seven companies as average shows 0.708727, 0.6203480. 0.353429 and 0.912454 respectively.

Table 2 shows the year wise comparison of performance index for seven listed companies.

Table 2 Year wise comparison of performance index

Years	BROWN & COMPANY PLC	C. W. MACKIE PLC	EASTERN MERCHANTS PLC	OFFICE EQUIPMENT PLC	SINGER (SRILANKA)	RADIAM GEMS INTERNATIONAL plc	TESS AGRO LTD	firm having >1
2004	1.09564	1.16542	0.709829	0.99178	0.999754	0.9351	0.827	**2**
2005	1.06285	0.90853	1.162518	1.062397	0.989601	2.933349	1.129	**4**
2006	1.00529	0.98783	0.899581	0.946362	1.05099	0.828282	0.914	**2**
2007	0.99243	0.90700	0.980965	1.239786	1.00862	0.599097	1.005	**3**
2008	1.12501	1.19698	0.9904	8.992709	10.71034	2.021332	3.455	**5**
2009	1.34562	0.65816	1.177129	0.101695	0.098243	1.587932	1.178	**4**
2010	1.23165	0.89765	1.724021	1.040707	1.004834	0.685498	0.414	**5**
years having >1	6	2	3	4	4	3	4	

A year wise comparison reveals that the number of efficient firms varied from 2 to 5. In 2004 and 2006 two companies cross performance level (≥1). In the year 2005 and 2009 four companies could cross the level. But in the year 2008 and 2010, 5 companies out of seven had managed their current assets efficiently and crossed performance level. In 2007 three companies cross performance level (≥1).

Individual company wise analysis reveals that, Brown & company plc_performed working capital management better way as 6 years out of study period of 7 years, the company's performance index crossed 1. C. W. Mackie plc performance over study period was not good. Out of 7years of study, they crossed the performance level 2 times only. In comparison, C. W. Mackie plc And Brown & company plc could do better, as they managed their working capital efficiently for 4 times. According to the number of times the companies crossed performance level, Brown & company plc is in first position crossing the level 6 times. Other three companies , i.e. OFFICE EQUIPMENT PLC, Singer company(srilanka) and Tess Agro LTD got second position by managing various components of current assets better for 4 times. But, in the year 2008 and 2010, when most of the firm performed well. Eastern Merchant PLC and Radiam gems international plc international got third position by managing various components of current assets better for 3 times.

Table 3 shows the year wise comparison of **Utilization index of WCM** seven listed companies.

Table 3 : Year wise comparison of Utilization index of WCM:

Years	BROWN & COMPANY PLC	C. W. MACKIE PLC	EASTERN MERCHANTS PLC	OFFICE EQUIPMENT PLC	singer(srilanka)	RADIAM GEMS INTERNATIONAL plc	TESS AGRO LTD	**companies having >1**
2004	0.951	0.556	0.811	1.106	0.619	1.0472	1.1056	**3**
2005	0.937	0.787	0.723	0.344	0.56	1.043	0.549	**1**
2006	0.672	0.556	0.793	1.08	0.7006	0.506	0.3867	**1**
2007	0.465	0.562	0.889	8.66	0.6779	0.566	1.182	**2**
2008	0.886	0.813	0.889	0.849	10.469	1.976	4.626	**3**
2009	0.702	1.14	1.57	0.716	0.853	1.003	0.775	**3**
2010	0.951	0.807	0.745	1.056	0.7627	0.7101	0.212	**1**
year having >1	0	1	1	4	1	4	3	

Table 3 show years 2004, 2008 and 2009 are the best years for the group of companies . In this year, 3companies out of 7 companies index is showing greater than 1. In 2004 Brown & company plc C. W. Mackie plc eastern merchants plc and singer(sri lanka) could not cross the level. Again, in the year 2005, 2006 and 2010 was not satisfactory. Only one company could perform well. So, Average indices of group of companies for these years are bellow 1.

company wise analysis shows that, Office equipment plc and Radiam gems international plc are at the top in utilizing current assets to increase income. Out of 7years data, 4 years indices of them are showing greater than 1. Brown & company plc is at last as this company could not achieve greater than 1.Tess agro ltd got second position by managing various components of current assets better of 3times.

Table 4 shows the year wise comparison of **Efficiency index** for seven listed Trading companies.

Table 4: Year wise comparison of Efficiency index

Years	BROWN & COMPANY PLC	C. W. MACKIE PLC	EASTERN MERCHANTS PLC	OFFICE EQUIPMENT PLC	singer(srilanka)	RADIAM GEMS INTERNATIONAL plc	TESS AGRO LTD	**No of companies having >1**
2004	1.042	0.648	0.576	1.097	0.619	0.979	0.915	2
2005	0.996	0.715	0.84	0.366	0.556	3.059	0.620	1
2006	0.675	0.549	0.713	1.022	0.736	0.419	0.353	1
2007	0.462	0.51	0.873	10.74	0.684	0.339	1.188	2
2008	0.997	0.973	0.881	7.636	112.12	3.994	15.98	4
2009	0.944	0.75	1.85	0.072	0.083	1.594	0.912	2
2010	1.171	0.724	1.28	1.099	0.766	0.487	0.088	3
No of year having >1	2	0	2	5	1	2	2	

2008 is the best year when group of companys' efficiency was best four out of study period of 7 years. In this year, 4 out of 7 companies efficiently managed working capital and indices crossed 1. 2005 and 2006 are the worst years for the group of companies. In this year, one company could perform well. In 2004 Highest index was found 1.097 (Office equipment plc) and lowest index was found .576 in this year (Eastern merchants plc). 2007 and 2009 were also not the good performed year for the group. In 2008 out of 7 companies four companies have achieved EI>1. Company wise analysis indicates OFFICE EQUIPMENT PLC as Efficient company. . Out of 7years, they crossed efficiency level (efficiency index) 5 times.

The key findings from the study were

- The average indices of seven companies shows the good performance of Trading secoor in Sri Lanka
- Based on the company wise comparison of PI index of WCM , Brown & Company plc managed their current assets efficiently and year wise comparison shows in 2008 and 2010, trading companies achieved better performance.
- According to the company wise comparison of UI index of WCM, Office Equipment plc achieved better performance.
- Based on the company wise comparison of EI index of WCM, Office Equipment plc achieved better performance.

CONCLUSIONS

In this study I investigated the efficiency of managing working capital of seven Trading companies listed in CSE for the period from 2004 to 2010. But traditional methods of analyzing working capital ratios are not used here. Three index values, Performance index, Utilization index and efficiency index have been used to find individual company's efficiency in working capital management. From this study, it is observed that the average efficiency level was satisfactory. Average of average values of all the years for the group of companies is showing good position (greater than 1). But it does not mean that most of the companies performed well through out the period.

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