Working Capital Management Practices: Profitable Textile Companies vs. Non-profitable Textile Companies

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Abstract: The purpose of this study is to examine the effect of working capital management on profitability of textile companies and compare working capital management practices of profitable companies and non-profitable companies. For this purpose, 20 textile companies are selected as a sample which include 10 profitable companies and 10 non-profitable companies. This research cover data of five years from 2013 to 2017. Which textile company's average net profit margin for this period is positive is consider as a profitable company and which company's average net profit margin is negative for this period is consider as a non-profitable company. In these research, ratio analysis has been used to evaluate working capital management practices of companies while correlation analysis has been used to find out type of relationship between working capital management and profitability of textile companies. Average Collection Period(ACP), Inventory Conversion Period(ICP), Average Payable Period(APP), Cash Conversion Cycle(CCC), Inventory to Current Assets Ratio(ITCA), Cash to Current Assets Ratio(CTCA) has been used in this research. To compare working capital management practices of profitable companies and non-profitable companies, descriptive statistics has been used in this study. This research found that profitability of company is significantly and negatively related with average collection period, inventory conversion period, average payable period and cash conversion cycle while significantly and positively related with current ratio. This research also found that level of inventory and level of cash has no significant impact on textile companies' profitability. The key findings of comparative study were (1) Profitable companies averagely take so less time to collect their amount of credit sales in compare of non-profitable companies. (2) Non-profitable companies averagely take more time to convert its' inventory into sales in compare of profitable companies. (3) Profitable companies make payment to their trade payable more rapidly in compare of non-profitable companies. (4) Profitable companies cash conversion cycle is low in compare of non-profitable companies. (5) Non-profitable companies' average current ratio for research period is low in compare of non-profitable companies average current ratio.

Key Words: Working Capital Management, Profitability, Textile Companies, Average Collection Period, Inventory Conversion Period, Average Payable Period, Cash Conversion Cycle, Inventory to Current Assets Ratio, Cash to Current Assets Ratio.

INTRODUCTION

Every business concern needs two types of funds. For its establishment and create production facilities, business concern need long-term funds while to carry out day-to-day operations, business concern needs short-term funds which is also known as working capital. Working capital can be classified on the basis of concept and on the basis of time. On the basis of concept, working capital classified in two categories: (1) Gross working capital and (2) Net working capital. Gross working capital refers to total current assets while Net working capital refers to excess of current assets over current liabilities. On the basis of time, working capital classified into two categories: (1) Fixed or Permanent working capital and (2) Variable or Temporary working capital. The minimum amount of working capital for effective utilization of fixed assets and for the maintain the circulation of current assets is refers as the fixed working capital. Working capital which is needed to meet the seasonal demand and some special occasions is refers as the variable working capital management. Effective working capital management is an essential part of any business concern's business strategy because excess working capital and inadequate working capital both have a bad impact on business performance. The management of working capital includes cash management, inventories management, management of receivables and management of payables.

Textile Industry in India

Textile industry is one of the oldest and largest industry in Indian economy. Raw cotton and man-made fibers are the two main components of textile industry. India is the 2nd largest producer of Manmade Fiber and Filament in the world with the total production of around 211 million kg in the year 2016-17. In the same year, India is the largest producer of cotton with the total production of 6106 million kg. Textile industry contribute 10 per cent in the total production of manufacturing sector of India. The domestic textile and apparel is one of the largest contributor in the export of this industry. Textile industry contribute 2 per cent in GDP of India and it also contributes 13 per cent in to the export income of India. Textile industry provide employment to 45 million people in India which is around 20% of the total employment generated in the economy.

LITERATURE REVIEW

M. Deloof conduct research to investigate the relation between working capital management and corporate profitability. For this purpose, he takes sample of 1009 large Belgian non-financial firms' data for the period of year 1992 to year 1996. He used in his research number of days account receivable and account payable as an indicator of trade credit. To measure inventory policies, he used number of days inventory hold and he also used cash conversion cycle as a comprehensive measure of working capital management. The gross operating income is used as an indicator of profitability. His research paper reported that gross operating income is negatively related with number of days account receivables, number of days inventory held and number of days account payable.

Dr. A. Seyoum, T. Tesfay and T. Kassahun examine the impact of working capital management on the profitability of food complex manufacturing firms operating around Addis Ababa. They collect data using financial statements of 10 food complex manufacturing firms which is for the period of from year 2009 to 2013. They used inventory turnover days, account receivable collection period, days payable outstanding, cash conversion cycle, current ratio and quick ratio to measure working capital management and return on assets to measure profitability. To evaluate relation of working capital management and profitability, they used Pearson correlation and multiple regression analysis. They found that average days in inventory, average days payable and cash conversion cycle are significantly and negatively related with profitability while current ratio and quick ratio have insignificant and positive impact on profitability of food complex manufacturing companies.

Kiprotich, Chebet, Rehema, Dr. E. Nambuswa, Mr. Okwaro and Fredrick conducted research with the purpose of the study to establish the determinants of working capital management periods on profitability of the SMEs in Trans Nzoia County. Their study was guided by the Liquidity Theory, Corporate Risk Management Theory and Finance Theory. They take sample of 98 small and medium enterprises. Their finding shows that Average Collection Period and Cash Conversion Cycle are the major degerminators of profitability. They also reported that Average Payment Period had a negative and significant effect on profitability.

A. Raheman and M. Nasr attempted research to evaluate effect of working capital management on profitability of the firm. They selected sample of 94 Pakistani firms which listed on Karachi Stock Exchange. They used data of 6 years from year 1999 to year 2004. They used average collection period, Inventory turnover in days, average payment period, cash conversion cycle and current ratio to evaluate working capital management and net profit margin as a proxy of profitability. They also used Pearson correlation and regression analysis to examine relation of working capital management and profitability. They found strong negative relationship between variables of the working capital management and profitability of the firm. They also reported negative relationship between liquidity and profitability in their research.

D.M. Mathuva examined the impact of working capital management components on profitability by examine the sample of 30 firms. He used data for the period of 1993 to 2008. He used pooled OLS and fixed effect regression models in research. He found significant negative relation between account collection period and profitability. He also found that inventory conversion period and average payment period are significantly and positively related with profitability.

Mr. N.S. Babu and Prof. G.V. Chalam investigates the relationship between the component of working capital and profitability of Indian leather industry. They consider return on assets(ROA) as indicator of profitability and inventory conversion period, average collection period, average payment period and cash conversion cycle are used as an indicator of working capital management. They used regression analysis and correlation analysis to examine the relation of working capital and profitability. Their results indicate that inventory conversion period positively and insignificantly related with profitability and average collection period is positively and significantly related with profitability. They also found significant negative relation of average payment period and cash conversion cycle with profitability.

OBJECTIVES

The objective of present study is to examine and analyze the working capital management practices of Profitable Textile Companies and Non-profitable Textile Companies operating in India. The specific objectives of study are as follow.

- ✓ To evaluate relation of working capital management and Textile companies' profitability.
- ✓ To evaluate the impact of average collection period on the profitability of textile companies of India.
- ✓ To evaluate the relation of inventory conversion period with profitability of textile companies of India.
- ✓ To examine the impact of average payable period on profitability of textile companies of India.
- ✓ To analyse the effect of cash conversion cycle on profitability of textile companies of India.
- ✓ To investigate the impact of level of working capital on profitability of textile companies of India.
- ✓ To examine the impact of level of cash and inventory on profitability of textile companies of India.

RESEARCH METHODOLOGY

Data collection

These research is quantitative research which is based on secondary type of data. The data for present research is collected from annual reports of the companies.

Sample design

The sample consist 20 textile companies' five years financial data which include 10 profitable companies' data and 10 non-profitable companies' data.

Profitable Firms – Which company's average net profitable margin for research period is positive is consider as a profitable company.

Non-profitable Firms - Which company's average net profitable margin is negative for research period is consider as a non-profitable company.

Research period is for five years which cover from year 2013 to year 2017. List of companies which include in sample is shown in Table:1.

Table:1 List of companies included in sample

	Name of Company	Average Value of NPM for Research Period
Profitable Companies		
1	The Ruby Mills Limited	21.63%
2	Kitex Garments Limited	15.80%
3	Premco Global Limited	14.00%
4	Sarla Performance Fibers	12.28%
5	Vardhman Textiles Limited	11.16%
6	Ambika Cotton Mills Limited	9.55%
7	Arrow Textiles Limited	8.91%
8	Super Sales India Limited	6.89%
9	Garware-Wall Ropes Limited	6.13%
10	S.P. Apparels Limited	3.49%
Non-profitable Companies		
1	Anshu's Clothing Limited	-160.94%
2	Birla Cotsyn (India) Limited	-156.21%
3	Pradip Overseas Limited	-85.84%

4	Jaybharat Textiles	-38.06%
5	Mandhana Industries Limited	-24.74%
6	STG Global Limited	-24.17%
7	SEL Manufacturing Company Limited	-12.48%
8	Alps Industries Limited	-8.39%
9	Hindoostan Mills Limited	-1.53%
10	Bombay Rayon Fashions Limited	-2.64%

Accounting methods

Ratio analysis is a method which is used to evaluate various aspects of a company's operating and financial performance such as its' efficiency, liquidity, profitability and solvency. Ratio analysis has been used in this research to evaluate profitability of companies and working capital management practices of companies. Net Profit Margin is considered as an indicator of profitability. To evaluate working capital management, Average Collection Period, Inventory Conversion Period, Average Payable Period, Cash Conversion Cycle, Inventory to Current Assets Ratio and Cash to Current Assets Ratio has been used in research. Calculations formulas of these ratios are shown in table:2

Table:2 Formulas of Ratio Calculations

Ratio	Formula
Net Profit Margin (NPM)	Net Profit / Net Sales × 100
Average Collection Period (ACP)	Trade Receivables / Net Sales × 365
Inventory Conversion Period (ICP)	Inventory / Cost of Goods Sold × 365
Average Payable Period (APP)	Trade Payables / Purchase × 365
Cash Conversion Cycle (CCC)	ACP + ICP – APP
Inventory to Current Assets Ratio (ITCA)	Inventory / Current Assets
Cash to Current Assets Ratio (CTCA)	Cash and Cash Equivalents / Current Assets
Current Ratio (CR)	Current Assets / Current Liabilities

Statistical methods

In this research, correlation and descriptive statistic methods has been used. Correlation has been used to find out relation of working capital management with companies' profitability and Descriptive statistic has been used in this research to compare working capital management practices of profitable companies and non-profitable companies.

DATA ANALYSIS AND FINDINGS

Table:1 Correlation between profitability indicator and working capital management indicators.

	NPM	ACP	ICP	APP	CCC	ITCA	CTCA	CR
NPM	1	-0.763**	-0.672**	-0.717**	-0.745**	0.043	0.087	0.262**
ACP	-0.763**	1	0.941**	0.931**	0.997**	-0.008	-0.082	-0.040
ICP	-0.672**	0.941**	1	0.955**	0.961**	0.079	-0.163	-0.070
APP	-0.717**	0.931**	0.955**	1	0.931**	-0.038	-0.107	-0.117
CCC	-0.745**	0.997**	0.961**	0.931**	1	0.023	-0.103	-0.037
ITCA	0.043	-0.008	0.079	-0.038	0.023	1	-0.434**	-0.028
CTCA	0.087	-0.082	-0.163	-0.107	-0.103	-0.434**	1	0.041
CR	0.262**	-0.040	-0.070	-0.117	-0.037	-0.028	0.041	1
N=100								

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

Table:1 shows correlation of net profit margin with various working capital management ratios for both profitable and non-profitable companies.

Correlation between NPM and ACP is negative which indicate that as days of ACP increase, profitability will be decrease and vice a versa. Correlation between these two variables is significant at 1% of significance level. Thus, there is a significant negative relation between ACP and NPM. Company can maximize their profit by minimizing the number of days collection.

Correlation between NPM and ICP is also negative which means more time take to convert inventory into sales has an inverse effect on profitability of companies. Correlation of ICP and NPM is significant at 1% level of significance. So, there is significant negative relation between ICP and profitability. Company have to determine appropriate inventory policy, levels of inventory, reorder level in order to reduce the period of ICP.

The negative correlation between APP and NPM indicates that as days of APP increase, companies' profitability will decrease and vice a versa. Correlation value is significant at 1% level of significance. So, there is significant negative relation between APP and NPM. Company have to make their payment as early as possible.

The negative relation between CCC and NPM indicates that more time taken for this purpose have a negative impact companies' profitability and correlation between these two variables is also significant at 1% of significance. Thus, there is significant negative relation between CCC and profitability of company.

Correlation of NPM with ITCA and CTCA is positive but not significant. Thus, there is no significant relation between ITCA and profitability and there is no significant relation between CTCA and profitability.

The positive relation between CR and NPM indicates that increase in current assets or decrease in current liabilities or both has a positive impact on companies' profitability. Correlation is also significant at 1% level of significance. So, there is significant positive relation between CR and profitability of company.

ACP, ICP, APP, CCC and CR has a significant impact on the profitability of textile companies. So, it's appropriate to compare working capital management practices of profitable companies and non-profitable companies on basis of these variables.

Profitable Company's Working Capital Management vs. Non-profitable Company's Working Capital Management

Net Profit Margin

	N	Minimum	Maximum	Mean	Standard Deviation
Profitable Companies	50	0.75	27.28	10.99	5.83
Non-profitable Companies	50	-623.73	20.62	-51.50	109.49

Mean value of NPM for profitable companies is 10.99% and for non-profitable companies this value is -51.50%. Value of NPM for profitable companies can be deviate from mean value by 5.83% and value of same variable can be deviate from mean value for non-profitable companies by 109.49% which indicates that there is so much deviation in value of NPM in case of non-profitable companies.

Average Collection Period

	N	Minimum	Maximum	Mean	Standard Deviation
Profitable Companies	50	4.37	126.42	59.25	26.07
Non-profitable Companies	50	0.60	14286.12	535.08	2072.13

Generally, a less time taken for this purpose is more favorable for any business concern. Profitable firm averagely takes 59 days to collect their amount of credit sales from their customers while non-profitable companies averagely takes 535 days for the same purpose. Apparently, non-profitable companies take much more time to collect their amount of credit sales in compare of profitable companies. The standard deviation value of ACP for profitable firms (26.07 days) is so less than standard deviation value for non-profitable companies (2072.13 days) which means that there is great deviation in value of ACP for non-profitable firms.

Inventory Conversion Period

	N	Minimum	Maximum	Mean	Standard Deviation
Profitable Companies	50	16.79	369.15	169.40	75.32
Non-profitable Companies	50	9.34	4583.49	388.14	731.72

Profitable firms averagely convert its' inventory into sales in 169 days while non-profitable companies take 388 days to convert its' inventory into sales. Profitable companies take less time for convert inventory into sales in compare of non-profitable firms. Non-profitable companies have to reduce number of days of ICP to improve performance. The standard deviation value of ICP for non-profitable companies is higher than value of standard deviation for profitable companies which indicates that there is much deviation in inventory management of non-profitable companies.

Average Payable Period

	N	Minimum	Maximum	Mean	Standard Deviation
Profitable Companies	50	8.35	251.69	71.09	70.34
Non-profitable Companies	50	0.67	2291.44	158.54	370.63

Profitable companies take 71 days to pay their credit purchase while non-profitable companies take 158 days for the same purpose. Apparently, non-profitable companies take much more time to pay their suppliers in compare of profitable firms. One of the reason behind it is that non-profitable companies take much time to collect amount of credit sales from their customers. Taking much time in collection amount make payment period long. Non-profitable companies have to make their collection faster so that they can make payment to their supplier easily.

Cash Conversion Cycle

	N	Minimum	Maximum	Mean	Standard Deviation
Profitable Companies	50	16.23	310.38	157.56	68.61
Non-profitable Companies	50	-74.23	16578.18	764.69	2420.16

Profitable companies' cash conversion cycle is 158 days which means profitable companies takes 158 days to convert cash into inventory and trade payables through sales and trade receivables and then back into cash. Non-profitable companies take 765 days for this purpose which more than 2 years. It indicates that non-profitable companies' working capital stuck in inventory and trade payable for more than 2 years.

Current Ratio

	N	Minimum	Maximum	Mean	Standard Deviation
Profitable Companies	50	0.68	5.03	1.75	0.96
Non-profitable Companies	50	0.04	4.16	1.16	0.72

Profitable companies averagely maintain their current ratio at 1.75 which higher than the average value of current ratio for non-profitable companies. High current ratio shows that company can pay their current liabilities through their current assets easily. Here, profitable companies possess high current ratio in compare of non-profitable companies which means profitable companies can easily pay their current liabilities in compare of profitable companies.

Suggestions for Non-Profitable Companies

Non-profitable companies have to…

- reduce their days of collection period. For this purpose, companies have to adopt sound credit policy.
- reduce inventory conversion period. Companies can determine stock levels, re-order level, minimum level, maximum level for this purpose.
- make payment to their suppliers as early as possible so company can take advantage of discount.
- invest in current assets and endower to reduce current liabilities as low as possible.

CONCLUSION

(1) The present study finds that there is significant negative relation between profitability and ACP. Profitable companies take so less time to collect amount of their credit sales from their customers in compare of non-profitable companies. Profitable companies averagely gave 59 days credit to their customers while non-profitable companies take 535 days to collect their amount of credit sales from their customers. (2) There is significant negative relation between profitability and APP. Non-profitable companies averagely take more time to pay for its credit purchase in compare of profitable companies. Non-profitable companies averagely get 158 days credit from their suppliers while profitable companies get 71 days credit from their customers. (3) This study found that there is significant negative relation between companies' profitability and ICP which means if companies want to gain profit than company have to maintain its' days of ICP as low as possible. Profitable companies averagely take 169 days to convert its' inventory into sales while non-profitable companies take 388 days for this purpose. (4) This present study reported that Cash Conversion Cycle and companies' profitability is negatively related which means high cash conversion cycle is not appropriate for companies' profitability. This study also found that profitable companies average cash conversion cycle is 158 days while non-profitable average cash conversion cycle is for 765 days. (5) Profitability and level of working capital are positively related which indicates that company can increase their profit by increasing working capital. Non-profitable companies averagely maintain their current ratio at level of 1.16 and profitable companies maintain their current ratio at level of 1.75. (6) This study found that level of cash in hand has no significant impact on companies' profitability. (7) Present study found that level of inventory does not affect the profitability of textile companies.

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