

# Corporate Liquidity and Profitability Patterns of Some Selected Textile Manufacturing Companies Listed with Dhaka Stock Exchange Limited

Md. Ahasan Uddin \*, Mohammad Moniruzzaman, ACA

Dept. of Accounting & Information Systems, Faculty of Business Studies, University of Dhaka.

\*Corresponding Author: Lecturer, University of Dhaka,

Email: m.mishu14098@su.edu.bd

## **Abstract**

*Liquidity and profitability management are very important issues in the growth and survival of business entity. The ability to hold the trade-off between the two elements concerns the financial managers because either inadequate liquidity or excess liquidity may be damaging to the smooth operations of the organization as well as profitability. The primary aim of this paper is to see empirically the overall liquidity and profitability condition of textile industry and finding out whether there is any significant relationship between liquidity and profitability based on performance of some selected manufacturing companies in textile industry listed with Dhaka Stock Exchange Limited. The analysis is based on a sample of five manufacturing companies of textile industry listed with Dhaka Stock Exchange Limited for the period 2009-2012, i.e., fifteen firm years. Correlation analysis and descriptive statistics were used in the analysis. Findings suggest that there is no statistically significant relationship between liquidity and profitability and have a relatively weak liquidity conditions among listed manufacturing companies of textile industry. Besides, the study suggests that the liquidity has low degree of influence on the profitability and there exist an inconsistency in liquidity and profitability management among the selected manufacturing companies.*

**Keywords:** Cash Conversion Cycle (CCC), Receivables Collection Period (RCP), Payables Repayment Period (PRP), Inventory Conversion Period (ICP), Current Ratio (CR), Liquidity Ratio (LR).

## **1.0. Introduction**

Profitability and liquidity can be considered as most high up issues that management of every organization should take these as their major business decision areas. Liquidity refers to the ability of a firm to meet its short-term obligations. The liquidity of an asset means how quickly it can be transformed into cash. When referring to company's liquidity one usually means its ability to meet its current liabilities and is usually measured by different financial ratios. A study of liquidity is of major importance to the financial analysts because of its close relationship with day to day operations of a business (Bhunias et al., 2011). A weak liquidity position poses a threat that business firm faces

when paying their short-term liabilities that ultimately leads to a negative impact to the profitability of the concerned firms.

Profitability is a measure of the amount by which a firm's revenues exceeds its relevant expenses (Niresh et al., 2012). Potential investors are interested in dividends and appreciation in market price of stock. So, they pay more attention on the profitability ratios. Managers on the other hand are interested in measuring the operating performance in terms of profitability. Hence, a low profit margin would suggest ineffective management of resources that company has and also demotivate investors to invest in the company.

The liquidity and profitability goals are contradictory to each other in most of the decisions which the finance manager takes. For example, the firm by following a lenient credit policy may be in a position to increase its sales, but its liquidity may tend to worsen. In addition to this, referring to the risk return theory there is a direct relationship between risk and return. Thus, firms with high liquidity may have low risk and then low profitability (Falope et al., 2009). Conversely, firm that has low liquidity may face high risk results to higher return. Consequently, a firm is required to maintain a balance between liquidity and profitability in its day-to-day operations.

Cash is the lifeblood of organizations. An organization having a proper set of liquidity management policies and procedures will improve profits, reduce the risk of corporate failure and significantly improve its chances of survival. It also provides a strategic advantage especially in difficult economic times. Effective liquidity management will enable an organization to derive maximum benefits at minimal cost. As early stated, the survival of a business entity depends extensively on its ability to meet its current obligations as they fall due. This study has shown overall liquidity and profitability condition of textile industry and further shown the degree of relationship between liquidity management and profitability in the selected manufacturing companies listed with Dhaka Stock Exchange Limited (DSE).

## **2.0. Literature Review**

Liquidity and profitability are the two main purposes of Working Capital Management (WCM) and relates to the matching of assets and liabilities movements over time. The general claim in literature centers on liquidity/profitability tradeoff hypothesis which posit that these two financial terms pose conflicting ends to an organization. Hence, a pursuit of one will mean a tradeoff of the other (Mihir et al., 2009). However, the other side of thinking holds that managers can pursue both liquidity and profitability goals as these two objectives have a direct relationship. These two views were observed by Mihir et al. (2009) in their works: liquidity and profitability model of WCM. They



pointed out that there were two distinct schools of thought on this issue. Firstly, that working capital is not a factor of improving profitability and there may be a negative relationship between them. Secondly, as investment in working capital plays a vital role to improve corporate profitability, so unless there is a minimum level of investment in working capital, output and sales level cannot be maintained.

Specifically, Rahman (2011) studied 9 companies in textile industry covering the periods of three years from 2005 to 2008 where he concluded that profitability and working capital position of textiles industry is not satisfactory. The study further revealed that working capital management has a positive impact on Profitability. Sayaduzzaman (2006) in his article on “Working Capital Management: A study on British American Tobacco Bangladesh Company Limited” mentions that the efficiency of working capital management of British American Tobacco Bangladesh Company Ltd. is highly satisfactory due to the positive cash inflows and planned approach in managing the major elements of working capital. He found that working capital management helps to maintain all around efficiency in operations. Another study conducted by Rasul (2012) attempted to analyze liquidity impact on Islamic banks’ profitability in Bangladesh during the period 2001 to 2011, where he showed that there is greater dependency of bank’s profitability on liquidity as cash & dues from banks to total assets (CDTA), cash & dues from banks to total deposits (CDDEP), investment to total assets (INVSTA) and investment to total deposits (INVSDEP) are depended on independent variables like return on assets (ROA), return on equity (ROE) and return on deposits (ROD) suggested by adjusted R squares profitability variables ROA, ROE and ROD are respectively 17.1%, 4.5% and 24.6% dependent on independent variables. Most recent study conducted by Akter and Mahmud (2014) based on twelve banks in four different sectors (Government banks, Islami banks, multinational banks and private commercial banks) where they tried to figure out how much liquidity (CR) of a bank can explain its profitability (ROA) and conclusion was that there is no significant relationship between CR and ROA.

Shin et al. (1998) studied a sample of 58,985 listed companies in America for a period of twenty years and found a strong negative relationship between the net trade cycle (cash conversion cycle, CCC) as a measure of liquidity and ROA as a measure of corporate profitability. On the basis of this finding, they concluded that managers can increase the value for their shareholders by reducing the cash conversion period to a reasonable minimum. In the same vein, Deloof (2003) also reached the same conclusion when he investigated this relationship on a sample of 1009 large Belgian non-financial firms. A similar study was carried out in Athens by Lazaridis et al. (2006)

studying a sample of 131 listed firms for the period 2001 to 2004. They found a strong negative relationship between profitability and CCC and advised that managers handle correctly the CCC and keep each of its components at optimal level in order to enhance profitability.

Most recent studies have also confirmed the existence of the tradeoff between liquidity and profitability. For instance, Manohar et al. (2010), did a case study of Cement Industry in Tamilnadu and found significant negative relation between the firm's profitability and its liquidity level. Also, Bhunia et al. (2011) studied the importance of liquidity management on profitability and found a significant negative relationship between the profitability Measured by Return on Capital Employed (ROCE) and all the independent variables (CR, LR, ALR, DER, AOI, AOD, and AOC) except for CR which indicated a positive influence on profitability. An explanation to some of these results could be gleaned from the asserting that shortening the CCC releases liquidity and impacts directly on the company's financial position as well as the company's returns.

Contrary to the above-mentioned literature, some researchers found positive and mixed (both positive and negative) association between liquidity and profitability. Narware (2004) in his study of working capital management and profitability of NFL, a fertilizer company found both positive and negative association. Also, Deloof (2003) asserts that, a longer CCC might increase profitability because it leads to higher sale.

### **3.0. Objectives of the Study**

The purpose of this study is to examine the liquidity and the profitability pattern of textile industry and the relationship between them in order to predict whether liquidity predicts profitability. The study further attempted to generate evidence on whether firm's profitability measured by ROE and ROA depend on liquidity variables is significant or not. Specifically, the study tested empirically the association between CR, LQ and TCR on the one hand with ROE and ROA on the other hand. So, the objectives are as follows:

- i. Examine the liquidity and profitability condition of textile industry and to determine whether profitability and liquidity variables show satisfactory liquidity and profitability patterns of textile industry.
- ii. To identify the nature and the extent of the relationship between liquidity and profitability variables through correlation coefficient.
- iii. To provide appropriate policy recommendations for the managers of the concerned companies.



- iv. To suggest some measures to enhance the liquidity and profitability condition of listed manufacturing companies.

#### **4.0. Methodology**

##### **4.1. Data Source**

The present study used secondary data for the analysis. Data were extracted from the annual financial statements of the sampled companies for three years period, 2009-10, 2010-11 and 2011-12, making a total of 15 firms' years observations. In addition to this, articles from academic journals and relevant textbooks were also used.

##### **4.2. Sampling and Research Design**

The population of this study is confined to the textile sector consists of 32 firms listed with the DSE. For the purpose of this paper, the study has selected a sample of five (5) manufacturing companies out of 32 companies in textile sector listed with DSE Limited on random basis. Selected five companies listed with DSE are Malek Spinning Mills Ltd; Square Textiles Ltd; Makson Spinning Ltd; Saiham Cotton Ltd and Generation Next Ltd.

Both descriptive statistic and Pearson's Correlation analysis were applied for the data analysis. The choice of variable used in this study was influenced by previous studies. The dependent variable in this study is corporate profitability which is measured by the ROE and ROA. For the independent variables, the paper adopts traditional liquidity variables namely CR, LR and TCR. On the other hand, different efficiency variables like RCP, PRP, CCC and Operating Cash Flows Ratio (OCFR) have also been used for descriptive analysis to find out whether there is any relationship between these independent variables with ROE and ROA as dependent variables.

#### **5.0. Liquidity**

Liquidity is defined as the ability of a firm to meet its financial obligations as they fall due. The balance sheet (defined as "a structured statement of assets and liabilities") measures these resources and claims against these resources, describes the liquidity of the firm. Different liquidity measures like CR, acid test ratio, quick ratio, net working capital, operating cash flow ratio or cash ratio, working capital ratio, CCC as a combination of three activity variables: debtor collection period, creditor payment period, inventory conversion period are most often used in different research papers on corporate profitability and liquidity to measure the operating efficiency of the company. Among these variables following are used as liquidity variable for this paper:

##### **5.1. CCC**

The CCC is used as a comprehensive measure of working capital as it shows the time lag

between expenditure for the purchase of raw materials and the collection of sales of finished goods (Padachi, 2006). The day to day management of firm's short term assets and liabilities plays an important role in the success of the firm. Firms with long term prospects and healthy bottom lines do not remain solvent without good liquidity management. The CCC is calculated thus:

$$CCC = (\text{Days of Sale Outstanding} + \text{No. of Day in Inventories} - \text{Days of Payable Outstanding})$$

In the formula, above, the three variables to which CCC is dependent are defined as follows:

$$\diamond \text{ Days of Sales Outstanding/Receivables Collection Period (RCP)} = \frac{\text{Accounts Receivables}}{\frac{\text{Sales}}{365}}$$

This ratio shows number of days it takes an organization to recover its credit sales. Shorter period is better for the organization. Account receivable with a longer recovery period possesses occurrence of bad debt for the company and also affects liquidity in the short run.

$$\diamond \text{ Days of Sales in Inventory/ Inventory Conversion Period (ICP)} = \frac{\text{Inventory}}{\frac{\text{COGS}}{365}}$$

The inventory conversion period represents the number of days inventory is held before being sold and replaced. Shorter inventory conversion period is better because the faster we will convert our inventory into sales, there will be less chance of obsolescence and paying of overstocking cost.

$$\diamond \text{ Days of Payables Outstanding/Payable Repayment Period (PRP)} = \frac{\text{Accounts Payable}}{\frac{\text{COGS}}{365}}$$

This ratio shows the number of days the company is required to settle its short-term obligations. The longer the period the better for the company, as it gives the company leverage to recover it receivables.

Together with these variables, CCC is likely to be negative as well as positive. A positive result indicates the number of days a company must borrow or tie up capital while awaiting payment from a customer. A negative result indicates the number of days a company has received cash from sales before it must pay its suppliers (Drever, M, & Hutchinson, P, 2007). Of course, the ultimate goal is having low CCC, if possible negative, because the shorter the CCC, the more efficient the company is in managing its cash flow.

### 5.3. OCFR or TCR

An important measure of the overall financial health of a company is the level of cash it



generates through normal business operations. As a company operates, cash flows into the business as income and out as expenses. These activities, known as cash flows, are at the heart of all businesses and determine the ability of the company to generate profits and continue its operations.

The formula for the operating cash flow ratio can be written as:

$$\text{OCFR} = \frac{\text{Cash Flow from Operations}}{\text{Current Liabilities}}$$

#### 5.4. CR or QR

The CR is a financial ratio that shows the proportion of current assets to current liabilities. The CR is used as an indicator of a company's liquidity. In other words, a large amount of current assets in relationship to a small amount of current liabilities provides some assurance that the obligations coming due will be paid.

#### 5.5. LR

LR measures the ability of a company to use its near cash or quick assets to extinguish or retire its current liabilities immediately. Quick assets include those current assets that presumably can be quickly converted to cash at close to their book values. It excludes inventory.

$$\text{LR} = \frac{\text{Cash and Cash equivalents} + \text{Marketable Securities} + \text{Accounts Receivable}}{\text{Current Liabilities}}$$

#### 6.0. Corporate Profitability

Profitability is the ability to make profit from all the business activities of an organization, company, firm, or an enterprise. It measures management efficiency in the use of organizational resources in adding value to the business. Profit is the ultimate 'output' of a company, and it will have no future if it fails to make sufficient profits. Different profitability measures like ROCE, earnings before interest and taxes (EBIT), earning before tax (EBT), gross profit margin, net profit margin, ROA, ROE, return on investment (ROI), return on net assets (RONA) are most often used in different research papers on corporate profitability and liquidity to measure the operating efficiency of the company. Among these profitability measures we have used following two measures because these two effectively relates a profit figure (from the Profit and Loss Account) to a resources figure (from the Balance Sheet).

#### 6.1. ROE

Common or ordinary shareholders are entitled to the residue profits. The rate of dividend is not fixed; the earnings may be distributed to shareholders or retained in the business. Nevertheless, the net profit after tax represents their return. A return on shareholder's equity is calculated to see the

profitability of owners' investment. The shareholders' equity or net worth will include paid up share capital, share premium and reserves and surplus less accumulated losses. Net worth can also be found by subtracting total liabilities from the total assets. The ROE is net profit after taxes divided by shareholders' equity which is given by net worth.

$$ROE = \frac{\text{Profit after tax}}{\text{Net Worth (equity)}}$$

## 6.2. ROA

ROA expresses the net income earned by a company as a percentage of the total assets available for use by that company. ROA measures management's ability to earn a return on the firm's resources (assets). The income amount used in this computation is income before the deduction of interest expense, since interest is the return to creditors for the resources that they provide to the firm. The resulting adjusted income amount is thereby the income before any distribution to those who provided funds to the company. ROA is computed by dividing net income plus interest expense by the company's average investment in asset during the year.

$$ROA = \frac{\text{Net Income After Tax+Interest Expense}}{\text{Average total Asset during the year}}$$

## 7.0. Data Analysis and Discussion on Findings

The results and findings of the study are based on the empirical results that begins by looking at the-

- ❖ Descriptive statistics
- ❖ Pearson's Correlation.

### 7.1. Descriptive Statistics Analysis

A sample of five manufacturing companies for the year 2009-2012 in the textile sector quoted on the DSE was selected and used to determine the liquidity and profitability performances and to determine relationship between liquidity management and corporate profitability. The combined descriptive statistics for all the companies show (Table 1& 2) a relatively weak liquidity management. The average debtor's collection period of the companies (152 days) is larger than the average payment period (48 days). Account receivables with longer recoverable period possess the risk of bad debt for the company and also affect liquidity in the short run. Standard deviation for the Debtor Collection Period is also high (51.05). That means all the companies operating within the industry are not in the same track. Debtor Collection Period (DCP) for the companies significantly differs from each other that are also same for the Creditor Payment Period (CPP). ICP for the



companies (182 days) indicates inefficiencies also by standard deviation of 79.31 represents inconsistencies among companies in dealing with the inventory. That means companies on an average need 182 days to hold inventory before being sold and replaced. Actually, these activity ratios help us to predict companies' operating efficiency and effectiveness in dealing with its day to day operation. But together these activity ratios help us to draw conclusion about companies' liquidity in the form of CCC which in this case indicates a value of 286 days mean companies on an average spend 286 days to regain its investment in raw material.

**Table 1.** Descriptive statistics of selected five companies.

Particulars	Mean $\mu$ (AM)	Standard Deviation ( $\alpha$ )
Receivables Collection Period (RCP)	152	51.05
Payable Repayment Period (PRP)	47.8	54.55
Cash Conversion Cycle (CCC)	286	151.57
Inventory Conversion period (ICP)	181.8	79.31
Operating Cash Flow Ratio (OCF Ratio)	2.44%	19.42%
Liquid Ratio (LR)	1.19	0.14
Current Ratio (CR)	1.896	0.54
Return on Assets (ROA)	7.55%	4.3%
Return on Equity (ROE)	9.04%	5.5%

**Source:** Figures are calculated using the information provided in the annual report of the respective companies

The companies could settle only 2.44% of their current liability from their operating activities with high standard deviation (19.42%) which is not desirable. They have an average time lag of 286 to turn their investment in raw material to cash as indicated by CCC. This period seems too long and could have a negative impact on liquidity. Normally higher the debtors turnover ratio better it is. Higher turnover signifies speedy and effective collection. On the other hand, lower turnover indicates sluggish and inefficient collection leading to the doubts that receivables might contain significant doubtful debts. For the above case RCP is not in the satisfactory level for the companies on an average because 152 days in RCP indicates that companies within the industry are not efficient in managing their debtor. If we see PRP, companies have to pay their creditor within 48 days of purchase indicating huge mismatch between RCP and PRP. ICP also indicates inefficient performance and liquidity crisis in the overall industry. CR of 1.90 indicates companies have

availability of current assets that is approximately equal to double of current liabilities. Although it may be considered as satisfactory but liquid ratio score of 1.19 dictates companies' current assets consist significant portion of inventory and prepaid expenses that cannot be considered as most liquid assets create liquidity crisis in the company. Also, standard deviation for LR (0.14) and CR (0.54) indicates deviation in the liquidity management among the companies. Again, significant deviation in different variables indicates some form of inconsistency among companies operating within the industry. So overall, liquidity ratio for our concerned industry is not satisfactory.

On an average, all the companies ROA are 7.55% which is quite low. Common rule is that higher the ROA the better it is, because the company is earning more money on its assets. A low ROA compared with the industry average indicates inefficient use of company's assets. In case of ROE; higher values are generally favorable, meaning that the company is efficient in generating income by using shareholder wealth. Here average ROE is quite low (9.04%). One thing should be mentioned that the deviation in ROE (5.5%) and ROA (4.3%) among different companies in the industry is also significant meaning that all the firms in the industry are not able to get profit. However, relying solely on ROE for investment decisions is not safe. It can be artificially influenced by the management.

**Table 2.** Summary of Companies Liquidity Management and Profitability (Average for the year 2009-2012).

Ratios Companies	RCP	PRP	ICP	CCC	CR	LR	OCF Ratio	ROA	ROE
Malek Spinning	112 days	17 days	195 days	290 days	2.54	1.13	-11.30%	2.18%	0.3%
Square Textile	136 days	100 days	114 days	149 days	1.95	1.05	34.09%	10.88%	15.57%
Makson Spinning	228 days	2 days	312 days	538 days	2.12	1.18	-15.24%	12.89%	9.27%
Saiham Cotton	178 days	114 days	127 days	191 days	1.79	1.16	03.98%	6.78%	10.06%
Generation Next	106 days	6 days	161 days	262 days	1.08	1.43	0.65%	5%	10%

**Source:** Figures are calculated using the information provided in the annual report of the respective companies.



If we see Table 2, CCC is lower (149 days) for Square Textile among five (5) companies that means square is most efficient in collecting their invested amount in the production process back to them among concerned companies. Again, CR and LR for Square Textile is also satisfactory matching with the standard for CR (2:1) and LR (1:1). The thing is that CR and LR should not be more or less; rather it should be matched with standard in order to avoid both liquidity crises and excess liquidity. In case of OCF ratio, square also leads among the companies because it is able to repay 34.09% of its current liabilities from its operating cash flows also highest among the companies. ROA is highest for Makson Spinning (12.89%) followed by Square Textile (10.88%) that means both companies effectively manage their liquidity and profitability within industry. ROE is highest for Square Textile (15.57%) followed by Saiham Cotton (10.6%) indicating effective liquidity profitability tradeoff for Square Textile.

## 7.2. Pearson's Correlation Analysis

### 7.2.1. Research Model:

Pearson correlation analysis was carried out to identify the trade-off between liquidity and profitability. Here, liquidity variables are independent and profitability variables are dependent. It can be represented as follows;

$$P = f(L)$$

Which shows profitability is the function of liquidity.

Where, P = Profitability; L = Liquidity

In the present study, profitability is measured by using two ratios namely ROA and ROE as suggested by J. Aloy Niresh(2011) and Monika Bolek(2013), whereas liquidity is measured by using CR, TCR and LR. Further some of the liquidity variables discussed earlier like DCP, CPP, ICP and CCC are also used.

### 7.2.2. Hypotheses of the Study

The following hypotheses were formulated for the study.

**H<sub>0</sub>:** Liquidity Management and Profitability are not significantly correlated.

**H<sub>1</sub>:** Liquidity Management and Profitability are significantly correlated.

## 8.0. Result and Analysis

Through conducting correlation analysis this study was able to identify the degree of association among the variables. Table 3 indicates the relationship between the various independent and dependent variables used in the study. As it is observed in the table, the correlation values were found to be mixed (both positive and negative) between the independent and dependent variables.

The 'r' values were found to be negative between ROE & liquidity variables as measured by CR, LR and TCR consisting the correlation values of -0.52, -0.06 and -0.90. Correlation between ROE and CR is negative because as company invests more in the current asset its ability to invest in the long-term asset decreases that has an impact on profitability through lowering the investment in productive activities of business. Again, correlation

**Table 3.** Correlation Matrix.

Variables	CR	LR	TCR	RCP	PRP	ICP	CCC	ROE	ROA
CR	1.0000								
p-value	-								
LR	-0.7878	1.0000							
p-value	(0.9869)	-							
TCR	0.7078	-0.2549	1.0000						
p-value	(0.9992)	(1.000)	-						
RCP	0.2305	-0.2719	-0.3737	1.0000					
p-value	(1.000)	(1.000)	(1.000)	-					
PRP	-0.0016	-0.5455	-0.3271	0.0503	1.0000				
p-value	(1.0000)	(1.0000)	(1.0000)	(1.0000)	-				
ICP	0.3346	0.0893	0.1472	0.6165	-0.7325	1.0000			
p-value	(1.000)	(1.000)	(1.000)	(1.000)	(0.9981)	-			
CCC	0.2506	0.1558	0.0688	0.6403	-0.7288	0.9953*	1.0000		
p-value	(1.000)	(1.000)	(1.000)	(1.000)	(0.9983)	(0.0137)	-		
ROE	-0.5195	-0.0611	-0.9035	0.2181	0.5223	-0.3461	-0.2973	1.000	
p-value	1.000	1.000	0.7224	1.000	1.000	1.000	1.000	-	
ROA	0.0086	-0.3163	-0.6579	0.7490	0.1585	0.3582	0.3805	0.6973	1.000
p-value	1.000	1.000	0.9999	0.9965	1.000	1.000	1.000	.9995	-

Correlation is significant at the 0.05 level (2-tailed)

**Source:** Figures are calculated using the information provided in the annual report of the respective companies

between ROE and LR is justified to be negative for the same reasons. But ROE and TCR is significantly correlated as negative because TCR consists of only more liquid asset such as cash and cash equivalent and current liabilities. As company are holding more cash it does not invest neither in long term asset nor in other current assets rather than cash and cash equivalent, so it creates negative impact on profitability.



Now if we see correlation between profitability variable ROA and liquidity variable as measured by CR, LR and TCR we see 'r' value are 0.0086, -0.32 and -0.66 respectively. The correlation between ROA and CR is insignificantly positive meaning that there is no relation or insignificant relationship between them. Again, correlation between ROA and LR is -0.32 meaning that as company increases its investment in more liquid asset its ability to invest in the productive long term asset decreases as investment decreases. So it is negatively correlated following insignificant relation. Finally, ROA and TCR is correlated as negative indicated by the figure -0.66 meaning that as company holds more cash in their daily operation its ability to invest in the profitable opportunity decreases.

Besides the descriptive analysis above, it can be deduced by correlation that there exist positive relationship between the value of ROA and the company's RCP, PRP, ICP and CCC (Table 3). Higher RCP & CCC mean that companies have flexible credit policy that encourages its customers to purchase their product comparatively higher price which ensures more profitability in the company's financial statement. That is way result shows positive correlation. PRP is positively correlated with ROA (0.16), meaning that fund is used in the investment purpose rather as a payment to creditors. ROE has positive relationship with RCP (0.22) and PRP (0.52) for the same reasons as

ROA is positively correlated with RCP and PRP. But ROE has negative correlation with ICP (-0.35) because companies do not have available finished good to ensure sale at the same time profitability. Finally, it is apparent from the table that, without ICP and CCC correlation values were found to be statistically insignificant between all the independent and dependent variables used in the study as indicated by the probability (P) values.

### 8.1 Hypothesis Testing

**Table 4.** Hypotheses testing result.

No.	Hypotheses	Results	Tools
H <sub>0</sub>	Liquidity Management and Profitability are not significantly correlated	Accepted	Correlation
H <sub>1</sub>	Liquidity Management and Profitability are significantly correlated.	Rejected	Correlation

### 8.2. Overall Findings and Recommendations

This study examined the trade-off between liquidity and profitability in the manufacturing sector of Bangladesh. The major findings with recommendations of the study are summarized below:

- 
- i. Although pair correlation among most of the variables does not show statistically significant relationship between liquidity and profitability, it can be said that changes in the liquidity position of selected firms exerts moderate or in some extent low level of changes in the profitability. It is suggested that further research can be conducted on the same topic with all the companies in the same sector as well as with different sectors and extending the years of the sample.
  - ii. The 'r' values were found to be negative between ROA & liquidity variables as measured by TCR and LR, consisting the correlation values of -0.66 and -0.52 but positive between ROA and CR consisting the correlation values of + 0.009. Again, 'r' values were found to be negative between ROE & liquidity variable as measured by CR, LR and TCR, consisting the correlation values -0.52, -0.06 and -0.90. So, the correlation values were found to be mixed (both positive and negative) between the independent and dependent variables although negative correlation is dominating.
  - iii. Average DCP 152 days compared with CPP 48 days, pointing poor level of management in the operation of the business because companies collect amount due to their debtors within 152 days of sale whereas pay amount due to creditors within 48 days of purchase indicating a mismatch between collection and payment period reflected in CCC of 286 days. It should therefore be the burning desire to make prudent liquidity decision, which is part of working capital financing in order to remain profitable and competitive.
  - iv. A cash ratio (operating cash flow ratio) of 1.00 and above means that the business will be able to pay all its current liabilities in immediate short term. Here, the value is 1.7, which is quite satisfactory (Table 1).
  - v. As average TCR, LR and CR for the industry are in a satisfactory position (Table 1). Better liquidity position of the companies to some extent makes it difficult for the companies to enjoy greater profitability. So, the candid recommendation of this paper is that overall state of liquidity should be made optimal so as to have a favorable impact on the profitability of the firms and also, reduction of cash conversion period which has the potential to improve profitability by utilizing the fund that may be increased through gearing up CCC.
  - vi. This paper has empirically established that a number of some key liquidity variables affect corporate profitability among selected firms in textile sector of Bangladesh. These include ICP, CCP, CR, LR and TCR. These factors will either positively affect profitability depending on how effectively and efficiently firm's liquidity management has been piloted



by corporate finance managers. So, an efficient tradeoff between liquidity and profitability should be maintained so that utility from both liquidity and profitability are in the optimum level.

- vii. A cautious attention has to be paid as far as the profitability is concerned. The coefficients of variation values of profitability measures (0.58 & 0.61) were found to be higher than those of liquidity measures. Thus, reveal the high volatility of profitability measures used in the study. Therefore, manufacturing firms in Bangladesh should focus on reducing the amount of volatility associated with the profitability measures.
- viii. Selected manufacturing companies in textile industry of Bangladesh should concentrate on maximizing profit while preserving liquidity. Policy makers should have the interest in promoting efficient management of liquid assets to promote profitability.

### **9.0 Conclusion**

Present declining states of many manufacturing companies in Bangladesh confirm inefficiency and ineptitude in the management of liquid assets as suggested by different liquidity variables. Although ROA and ROE value of 7.55 % and 9.04% respectively indicate relatively medium level of profitability in the textile industry, it can be improved through better managing of liquidity through focusing some liquidity indicators. Hence, it becomes important to think about proper liquidity and profitability management of the country's manufacturing as well as textile industry. As liquidity and profitability both contradicts with each other, a proper tradeoff between this two is necessary to ensure proper liquidity condition which at the same time ensure profitability in the organization as many studies confirm the existence of the tradeoff between liquidity and profitability. For instance, the finding of our study is also similar to that of Narware (2004), about working capital management and profitability of NFL, a fertilizer company that found both positive and negative association. Furthermore, this study is also similar to that of Ashok kumar and Manohar (2010) who did a case study of Cement Industry in Tamilnadu and found significant negative relation between the firm's profitability and its liquidity level.

The cardinality of liquidity management in any organization cannot be over emphasized. This is because either inadequate liquidity or excess liquidity may be injurious to the smooth operations of the organization. This paper was set out to explore the seemingly controversial profitability/liquidity trade off theory. Our empirical investigation using the pair correlation analysis reveals that liquidity ratio-measures like CR, LR and TCR have a negative relationship with profitability measured by ROE. Positive relation was found between liquidity measured by CR, DCP,

ICP, CPP and profitability measured by ROA. It is worthy to mention here that the negative direction reveals with respect to CCC and ROE is very informative of the fact that the CCC needs to be shortened to engender increase in profitability.

### References

- Akter, k.; Mahmud, k. (2014) Liquidity-Profitability Relationship in Bangladesh Banking Industry, *International Journal of Empirical Finance*: Vol. 2, pp 143-151.
- Bhunia, A.; Khan, I.U. (2011) Liquidity Management Efficiency of Indian Steel Companies: A Case Study, *Far East Journal of Psychology and Business*: Volume 3 Number 3.
- Bhunia, A.; Brahma, S.B. (2011) Importance of Liquidity Management on Profitability”, *Asian Journal of Business Management*, Volume 3 Number 2.
- Deloof, M. (2003) Does Working Capital Management affects Profitability of Belgian Firms? *Journal of Business Finance & Accounting*, Vol.30 No. 3 & 4.
- Niresh, J.A. (2011) Trade-Off Between Liquidity & Profitability: A Study Of Selected Manufacturing Firms In Sri Lanka, *Researchers World -Journal of Arts, Science & Commerce-ISSN 2229-4686 ,ISSN 2231-4172*.
- Manohar, V.; Ashokkumar, N. (2010) Liquidity Vs. Profitability-A Case Study on Inventory Management of Cement Industry in Tamilnadu, *Advances in Management*.
- Mihir D. and Rani R. (2009) A Liquidity-Profitability Trade-Off Model for Working Capital, *Management Social Science Research Network*
- Mathuva, D. (2009) The influence of working capital management components on corporate profitability: a survey on Kenyan listed firms. *Research Journal of Business Management*, Vol. 3, pp 1-11.
- Bolek, M. (2013) Profitability as a Liquidity and Risk Function Basing on the New Connect Market in Poland, *European Scientific Journal* October 2013 edition vol.9, No.28 ISSN: 1857 – 7881 e - ISSN 1857- 7431
- Narware, P.C. (2004) Working capital and profitability-an empirical analysis, *Management Accountant-Calcutta*, Vol. 39, pp 491-493.
- Nobanee, H.; Al Hajjar, M. (2009) A note on working capital management and corporate profitability of Japanese firms, Available at SSRN 1433243.



- Falope, O.I.; Ajilore, O.T. (2009) Working Capital Management and Corporate Profitability: Evidence from Panel Data Analysis of Selected Quoted Companies in Nigeria, *Research Journal of Business Management*, Vol. 3, Issue:3.
- Padachi, K. (2006) Trends in working capital management and its impact on firms' performance: an analysis of Mauritian small manufacturing firms, *International Review of business research papers*, Vol. 2, pp 45-58.
- Rahman M.M. (2011) Working Capital Management and Profitability: A Study on Textiles Industry, *ASA University Review*, Vol. 5 No. 1
- Rasul, L.M. (2012) Impact of Liquidity on Islamic Banks' Profitability: Evidence from Bangladesh *AUDOE*, Vol. 9, pp 23-36
- Shin, H.H.; L. Soenen (1998) Efficiency of working capital and corporate profitability, *Finance Pract. Educ.*, Vol. 8, pp 37-45.
- Syaduzzaman, M. (2006) Working Capital Management: A Study on British American Tobacco Bangladesh Company Limited, *The Journal of Nepalese Business Studies*, Vol. 3, pp 78-84.
- Teruel, P.J.G.; P.M. Solano (2005) Effects of working capital management on SME profitability, Working Papers Series. Dept. Organizacion de Empresas y Finanzas, Facultad de Economia y Empresa, Universidad de Murcia, Campus Espinardo, Spain
- Lazaridis, J.; D. Tryfonidis (2006) Relationship between working capital management and profitability of listed companies in the Athens stock exchange, *J. Financial Manage. Anal.*, Vol. 19, pp 26-35.