



Effects of Working Capital Management on Firm's Profitability: A Study on the Firms Listed Under DSE in Bangladesh

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Abstract

This paper investigates the relationship between working capital management and financial performance of Pharmaceuticals and Textile firms listed at the Dhaka Securities Exchange in Bangladesh. The data analysis was carried on ten Pharmaceuticals and Textile firms for a period of 2013 to 2017. Secondary Data was analyzed by applying Descriptive Statistics, Regression and Correlation analysis to find the relationship of current ratio, inventory conversion period and average payment period with Return on Asset. The findings indicate that the Pharmaceuticals and Textile firms' performance is influenced by the variables relating to working capital. There is a positive relationship between profitability and current ratio and Inventory Turnover period shows a negative relationship with profitability but Average payment period shows insignificant impact on profitability. The study concludes that there exists a relationship between working capital management and financial performance of Pharmaceuticals and Textile firms in Bangladesh. The study recommends that for the Pharmaceuticals and Textile firms to remain profitable, they should employ working capital management practice that will help in making decisions about investment mix and policy, matching investment to objective, asset allocation for institution and balancing risk against profitability.

Keywords: Working capital management (WCM); Return on asset (ROA); Current asset (CA); Inventory turnover period; Account payable period.

1. Introduction

The resources of a firm that are used to conduct the day-to-day activities of any business are referred to as the working capital. Its proper management is one of the most important areas in determining the success of a firm. It is generally believed that the working capital is the amount of capital which is readily available to an organization; that is, the difference between resources in cash or readily convertible into cash (current assets) and the organizational commitments for which cash would soon be required (current liabilities). Looking at this, it can be said that working capital simply means the resources which a firm has at hand to run its daily operations.

Working capital connotes the funds locked up in materials, work in progress, finished goods (inventory), account receivables (debtors) and cash. In this regard, [Khan and Jain \(2003\)](#) stated that current assets are those assets, which can be converted into cash within a short period of time, and the cash received is again invested into these assets; hence, it is constantly revolving or circulating. The proper and efficient management of the working capital of every business becomes a necessity if not obligatory.

Working capital management is concerned with managing the different components of current assets (inventories, debtors/receivables, cash/bank, short-term investments, and prepaid expenses) and current liabilities (creditors/payables, provision for tax, other provisions against the liabilities payable within a period of 1 year) in such a way and manner that optimum level of working capital is attained and maintained. It is therefore of importance to state at this juncture, as posited by [Ojeani \(2014\)](#) that optimal efficient working capital is usually achieved through the management of inventory, receivables, payables, cash conversion cycle and the operating cycle as a whole.

[Osisioma \(1997\)](#), revealed that working capital management ensures a sound liquidity and attainment of profit generating process, and also ensures acceptable relationship between the components of firms' working capital for efficient mix which guarantees capital adequacy.

Inventory management, according to [Stephen \(2012\)](#), consists of three components: raw material, work-in-progress and finished goods. He further explains that the holding of excessive stocks will lead to tying up capital in stocks while the holding of inadequate stock may lead to stock out cost such as lost profitability and goodwill from customers.

It is believed that the management of working capital will go a long way in the achievement of profitability and overall performance of businesses since there is a great relationship between level of a company's liquidity and its profitability [Ojeani \(2014\)](#). This implies that a firm's liquidity does, to a large extent, determine its profitability.

The foregoing discussions have gone a long way to demonstrate the need to balance working capital position of the business enterprise in order to maintain adequate liquidity, minimize risks and raise profitability at all times. Although several researches have been conducted in various industries, like the manufacturing industry, banking industry, building industry and so on, but no attention has been given to the conglomerate industry. It is on the above that the research aims at evaluating the impact of working capital on the profitability of firms in the conglomerate industry in Bangladesh.

1.1. Objectives of the Study

The main objective of this study is to examine the impact of working capital management on the profitability of listed conglomerate companies in Bangladesh.

The specific objectives are to:

1. Investigate the impact of Current ratio on the profitability of listed conglomerate companies in Bangladesh.
2. Determine the impact of inventory turnover period on profitability of listed conglomerate companies in Bangladesh.
3. Examine the impact of Account payable period on profitability of listed conglomerate companies in Bangladesh.

1.2. Significance of the Study

The study's findings may help the conglomerate firms in Bangladesh and other companies in general to improve on their financial decision making so as to optimize the value of the shareholders and maintain a favorable trade-off between liquidity and profitability.

The findings may be helpful to financial managers to be able to measure the level of safety for them to discharge obligations towards attaining profitability and to get prepared against eventualities. Creditors or prospective creditors who may be interested in ascertaining the credit worthiness of the firms could also benefit from the study.

2. Review of Literature

Working capital management plays an important role in a firm's profitability and risk as well as its value [\(Smith, 1980\)](#). Working capital is regarded as the result of the time lag between the expenditure for the purchase of raw material and the collection for the sale of the finished good. The way of working capital management can have a significant impact on both the liquidity and profitability of the company [\(Shin and Soenen, 1998\)](#).

[Rahman \(2011\)](#), investigates the relationship between the ability of firms to effectively manage its working capital components and their profitability; he found a negative relationship between working capital components and firm profitability implying that a firm's profitability is largely affected by the length of its cash conversion cycle.

[Deloof \(2003\)](#), discussed that most firms had a large amount of cash invested in working capital. It can therefore be expected that the way in which working capital is managed will have a significant impact on profitability of those firms. Using correlation and regression tests he found a significant negative relationship between gross operating income and the number of days accounts receivable, inventories and accounts payable of Belgian firms.

Efficient working capital management involves planning and controlling current assets and current liabilities in a manner that eliminates the risk of inability to meet short term obligations on one hand and avoids excessive investment [\(Eljelly, 2004\)](#).

[Weinraub and Visscher \(1998\)](#), discussed the issue of aggressive and conservative working capital management policies of US firms. The study showed a high and significant negative correlation between industry asset and liability policies and found that when relatively aggressive working capital asset policies are followed they are balanced by relatively conservative working capital financial policies.

Corporate financial officer's major concern is to satisfy the conflicting requirement of corporate liquidity and profitability in the face of high level of competition, increasing cost of capital and hyperinflation. The success of any business organizations in achieving the above goals is often attributed to proficiency in planning and control techniques [\(Imegi, 2003\)](#).

According to [Etiennot et al. \(2012\)](#) efficient financial markets, which are pervasive in developed economies, more easily correct deviations from optimal working capital policies when compared to less efficient ones which are more common among emerging economies. Therefore managing working capital becomes more critical for the firms' performance and survival in less efficient financial market.

[Deloof \(2003\)](#), posited that working capital provides a measure of firm's liquidity or its ability to meet its short-term obligations as they become due. [Eljelly \(2004\)](#), described working capital as the capital available for the day-to-day operations of an organization represented by its current assets. According to [Rahman \(2011\)](#) working capital can be referred to as circulating assets which consist of stocks, accounts payable and receivable, cash and short-term securities.

To [Ojeani \(2014\)](#), working capital is the excess of current assets over current liabilities. It is therefore concerned with the availability of fund to run a business. In the words of [Khan and Jain \(2003\)](#), they see working capital as the funds locked up in materials, work-in-progress, finished goods, receivable, and cash equivalent. With this definition,

it can be understood that working capital is that part of total assets which is easily reverted to cash within a short term. It is generally believed and held that working capital is all about current assets/liability.

Hossin (2015), examined the relationship between inflation and economic growth in the context of Bangladesh and found a statistically significant long-run negative association between inflation and economic growth for the country as point out by a statistically significant long-run negative relationship running from Gross Domestic Product Deflator (GDPD) to GDP.

For instance, Khan and Jain (2003) held that working capital is divided into two: Gross and Net. Gross working capital refers to the amount of funds invested in current assets that are employed in the business process while Net working capital is the difference between current assets and current liabilities. Furthermore, according to Eljelly (2004) working capital is the equilibrium between the income-generating and resource-purchasing activities of a company. That is the difference between current assets and current liabilities.

Similarly, Deloof (2003) also held that there are two concepts of working capital. These are: (i) gross working capital and (ii) net working capital. That gross working capital refers to the firm's investment in current assets. Current assets are the assets, which can be converted into cash within an accounting year or operating cycle. Thus, gross working capital, is the total of all current assets. It includes; inventories, trade debtors, cash and bank balance, and bills receivables, among others. Net working capital: Net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders, which are expected to mature for payment within an accounting year. Net working capital may be positive or negative. This measurement demonstrates how well companies can manage their short-term commitments. The optimum situation for most companies is when they manage financing of both expected and unexpected upcoming events without experiencing any financial distress.

Eljelly (2004), said Positive net working capital will arise when current assets exceed current liabilities and firm can use the surplus of current assets to fulfill their financial commitments and obligations to shareholders which is a vital aspect for the continuing growth of any company. Too high level of capital tied up in their current assets does not generate any additional value to the companies and would do more good in new investment that could bring the company further return. While a negative net working capital occurs when current liabilities exceed current assets. It means the company does not have enough own capital for financing its short-term debts.

The above definitions reveal three important features that particularly distinguish working capital from other categories of the firm's capital. Firstly, investment in working capital is continuous in nature. That is, it is made on daily, weekly, monthly, quarterly, semi-annually or yearly basis. Secondly, the components of working capital are readily available or easily convertible into cash. Thirdly, working capital is used in settling the firm's short-term obligations and expenses. Thus, working capital is non-permanent portion of the firm's capital which is readily available for the satisfaction of both maturing short-term obligations and upcoming operational expenses.

Hossin (2020), analysed the relationship among interest rate reforms, financial development and economic growth of Bangladesh by using a financial deepening model and a simple trivariate causality model. The inference of this study was that a deregulated deposit rate of interest will raise financial depth and eventually enhance the economic growth of Bangladesh.

Deloof (2003), defined working capital management as an accounting strategy focusing on maintaining efficient levels of current assets and current liabilities in respect to each other. Eljelly (2004), see working capital management from efficiency perspective and that can be measured and achieved through the cash conversion efficiency, days operating cycle and days working capital.. However, as important as that is, care must be taken so that balance is maintained in the level of liquidity of a firm since "cash pays no interest".

According to Rahman (2011) working capital management is consequential to a firm and that is usually explained by the relationship between working capital management and profitability. Stephen (2012), opined that working capital management deals with the determination of levels and compositions of current assets and ensuring that right sources of funds are tapped to finance current assets and ensuring that current liabilities are paid in time.

Eljelly (2004), argued that working capital management involves making appropriate investment in cash, marketable securities, inventories and receivables as well as the level and mix of short-term financing. Working capital management entails short term decisions generally relating to the next one year period which are reversible.

Chowdhury and Amin (2007), described working capital management as the administration of current assets in the name of cash, marketable securities, receivables, and staff advances, and inventories. Rahman (2011), holds that good working capital management must ensure an acceptable relationship between the different components of a firm's working capital so as to make an efficient mix which will guarantee capital adequacy.

Hossin and Islam (2019), examined the long-run equilibrium relationship between stock market development and economic growth of Bangladesh. The study demonstrated that a long run relationship exists between stock market development and economic growth in Bangladesh. The causality test results suggest a unidirectional causality running from stock market development to the economic growth.

In the view of Rahman (2011) if performance criteria such as liquidity, solvency/bankruptcy, efficiency, profitability and economic value are considered, it will be clearly apparent that the business must hold and manage the different levels of working capital which is appropriate to its performance criteria.

Raheman and Nasr (2007), proposed that working capital management is concerned with the problem that arises in attempting to manage the current assets, the current liabilities and the inter-relationship that exist between them.

According to Stephen (2012) working capital management involves both setting working capital policy and carrying out that policy in the day-to-day operations of the firm. He explained that working capital management revolves around two basic issues: (a) The appropriate amount of current assets firm will hold and (b) How the

current assets should be financed. The first issue is that the consideration of the level of investment in current assets should avoid two danger points; excessive and inadequate investment in current assets. The second issue on the other hand, covers the question of judicious mix of long-term and short-term funds for financing current assets.

From the above propositions it is clear that working capital management is aimed at achieving “an optimum balance between the twin objectives of profitability and liquidity by maintaining an appropriate level, volume, mixture, Composition and combination of various components of working capital to ensure that firms have sufficient funds to meet their short-term financial requirements” (Eljelly, 2004).

2.1. Components of Working Capital Management

The basic components of working capital management include inventory management, account receivable management, cash management and accounts payable management.

2.2. Inventory Management

Inventory management covers the range of management techniques for controlling the level of stock holding so that profitability/competitiveness can be maximized. Inventories exist principally in the form of raw- materials, work-in-progress and finished goods. The level of inventory a company will hold depends on the nature of its business. Manufacturing firms hold higher levels of stocks compared to others (Pandy, 2005).

Similarly, Deloof (2003) argued that inventories must be well managed to ensure continuous supply of raw-materials to avoid interruptions in production, maintaining sufficient stock of raw materials in period of scarcity and anticipated price changes, minimize carrying costs and time and keep investment in inventories at optimal level. Inventory turnover in days is another important component of working capital management which is also called inventory conversion period (Rahman, 2011). He said, it is the average time required to convert materials into finished goods and then to sell the goods.

2.3. Account Receivable Management

Accounts receivables arise when a company sells products or services on credit and does not collect cash immediately. Eljelly (2004), stated that since the purpose of offering credit are to maximize the profitability; the cost of debt collection should not be allowed to exceed the amount recovered. The investment in accounts receivable depends on the volume of credit sales and the average collection period, which is determined by the firm’s credit policy (Pandy, 2005).

Rahman (2011), proposed that credit policy is made up of three decision variables, namely; credit standard, credit terms and collection efforts. Changes in any of these variables will affect total investment in account receivable by the firm. Stephen (2012), asserted that all efforts the financial manager makes in setting credit standard, credit terms and credit collection periods should be geared towards establishing an optimal credit policy for the firm.

However, there will be net increase in operating profit only when the cost of extended credit period is less than the incremental operating profit. In line with the foregoing, Stephen (2012) also maintained that credit periods granted to customers, in most cases, and have positive impacts on profitability.

Raheman and Nasr (2007), added further that, given a significant investment in accounts receivable by most large firms, credit management policy choices and practices have important implications on corporate value and that successful management of accountsreceivable will often lead to higher corporate profitability.

2.4. Cash Management

Cash is the ultimate output to be realized by selling of goods and services. It is the money that a firm can readily disburse without any restriction (Pandy, 2005). The functions of cash management include managing cash received and paid out by the company, managing of cash circulating within the company, managing cash balances held by the firm and investing of surplus cash and finding ways to finance cash deficits (Shin and Soenen, 1998).

Stephen (2012), defined cash management as a set of techniques that act on the short-term liquidity of a company, and at the same time affect those factors and processes that translate immediately into cash, with the ultimate aim of increasing both the liquidity and profitability of the company.

Chowdhury and Amin (2007), posited that cash management is important for many reasons; cash flows cannot be predicted accurately. Also, cash inflows and outflows do not coincide perfectly in time and amounts. He argues that both cash collection and disbursement impact on the overall efficiency of cash management. To achieve efficient cash management, accounts receivable would have to be collected as soon as possible, but pay accounts payable as late as it is consistent with the firm’s credit standing with suppliers.

Eljelly (2004), argued that the ultimate goal of the financial manager in the management of cash is similar to the management of other current assets. That is, the objective is to attain an optimal balance and turnover of cash. Attaining the optimal balance of cash means that effective and efficient management of cash should impact on both the firm’s liquidity and profitability. According to Chowdhury and Amin (2007) there are three reasons why companies hold cash. These are transaction motive, precaution motive and speculative motive. He said transaction reason for which companies need cash is to balance short-term cash inflows and outflows since these are not perfectly matched. This is called the transaction motive for holding cash, and the approximate size of the cash reserve can be estimated by forecasting cash inflows and outflows and by preparing cash budgets. For instance, those arising from investment in a new project or redemption of debt. Precautionary motive, according to Rahman (2011)

are forecasts of future cash inflows due to uncertainty. This is because it is possible that a company will experience unexpected demands for cash which gives rise to the precautionary motive for holding cash. Reserves held for precautionary reasons could be in the form of easily realized short term investments.

Chowdhury and Amin (2007), said that companies may build up cash reserves in order to take advantage of any attractive investment opportunities that may arise. Shin and Soenen (1998), explained that excess cash implies inefficiency of management in applying funds to profitable projects as idle cash earns no income. On the other hand, inadequate cash exposes the firm to risk of illiquidity since it would not be able to meet its short-term maturing obligations nor can it take advantage of viable investment opportunities.

Cash conversion cycle can also be used to determine the amount of cash needed for any sales level; it is the period of time between the outlay of cash on raw materials and inflow of cash from the sales of finished goods and represents the number of days of operation for which financing is needed (Ojeani, 2014). He posits that the longer the cash conversion cycle, the greater the amount of investment required in working capital. According to him, the length of cash conversion cycle depends on the length of: the inventory conversion period, the trade receivables collection period; and the trade payables deferral period. The length of the cash conversion cycle (CCC) is given by:

$$CCC = \text{inventory days} + \text{Trade Receivables days} - \text{Trade Payables days}.$$

2.5. Accounts Payable Management

Accounts payable constitutes a short-term source of finance along with accrued expenses and deferred income. Trade credits could take the form of bills payable or promissory notes. Trade credit is a spontaneous source of finance and is relatively easy to obtain compared to other negotiated sources of finance (Pandy, 2005).

Stephen (2012), opined that accounts payable are largely dependent on the firm's purchases which in turn, will depend on the volume of production. Thus, a decision as to whether to take trade discount or not, or to stretch accounts payable or not, should be based on the cost and benefits analysis of a firm's credit policy in relation to profitability and liquidity of the enterprise.

Eljelly (2004), proposed that the ultimate effect of efficiently managing accounts payable is to optimize the cash outflow that ensures that a firm's liquidity is not adversely affected so that a company's profitability will not also be affected in the long run.

Deloof (2003), argued that whether or not a company should take advantage of trade discount depends on the trade-off involved. If discount is taken, there is a benefit of less cash outflow but the credit granted beyond the discount period is forgone. If discount is not taken, credit is available for the extended period but the company pays more. Therefore, the opportunity cost of trade credit should be compared with the cost of other sources of credit.

The optimum level of working capital can be arrived by considering it from the cost aspect of holding current assets. According to Pandy (2005), there are two types of cost associated to holding a particular level of current assets. These costs are the cost of liquidity and the cost of illiquidity.

To determine the optimum level of working capital, balance is maintained between the cost of liquidity and the cost of illiquidity. Hence, optimum level of working capital will be that level of current assets where the cost of liquidity equals to the cost of illiquidity (Pandy, 2005). With increasing liquidity the cost of liquidity increases. Similarly, cost of illiquidity increases as the level of current assets decreases. Therefore, current assets should be maintained at a level where the sum of these two costs is minimized. That is, where the cost of liquidity curve cuts the cost of illiquidity curve and the total cost curve at the minimum point.

2.6. Concept of Profitability

According to Rahman (2011), the term investment may refer to total assets or net assets. They say that the fund employed in net assets is known as capital employed. That the net assets equal net fixed assets plus current assets minus current liabilities excluding bank loan. They went further to say that investment refers to pool of funds supplied by shareholders and lenders. The conventional approach to calculating Return on Investment is to divide profit after tax by investment.

For return on equity, Raheman and Nasr (2007) held that common and ordinary shareholders are entitled to the residual profits; nevertheless, the net profit after tax represents their own. It is held by them that 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 (Raheman and Nasr, 2007).

Return on Equity (ROE) is net profit after tax divided by shareholders' equity which is given as net worth. Return on Assets (ROA) expresses the net income earned by a company as percentage of the total assets available for use by that company (Pandy, 2005).

According to Eljelly (2004), profitability refers to the ability of a firm to earn returns on investment made in its assets that has a positive net present value. Chowdhury and Amin (2007), described firm's profitability as the ability to generate revenue in excess of the cost of generating such revenue. It is a relative term measurable in terms of profit and its relation with other elements that can directly influence the profit.

Deloof (2003), held that profitability refers to the ability of an enterprise to generate profit from its investment. According to him, the management of cash, debtors, and stocks affects the level of profit made by organization. He further explains that the excessive holding of stocks leads to high stock handling costs, deterioration in the value of stocks due to damage and obsolescence, theft or pilferage by employees and wastage, and all these reduce a firm's profitability.

3. Research Methodology

3.1. Sample

Currently, 31 Pharmaceutical companies are listed under Pharmaceuticals sector in Dhaka Stock Exchange (DSE) and 53 Textile Company. So, the population size was 31 and 53. From these, this study has incorporated 5 pharmaceutical companies of varying sizes and 5 textile companies. The variation in the sizes has been considered to construct a reliable representation of the pharmaceutical and textile industry.

3.2. Data Sources

The study used secondary data collection methods which will be obtained from financial statements which include latest published annual reports, profit after tax, current assets, current liabilities, fixed assets and longterm debt and equity to be surveyed. Data have been collected from the annual reports of the sample companies for the period of 2013-2017.

3.3. Model Specifications

Using the following multiple regression equations to obtain the estimates:

$$ROA_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 ITP_{it} + \beta_3 APP_{it} + \mu_{it}$$

Where,	ROA = Return on Asset	ITP = Inventory Turnover Period
	CR = Current Ratio	APP =Account Payable Period

3.4. The Dependent variable

Return on Assets= Net Income / Total Assets

3.5. The Explanatory variables

Current Ratio= Current Assets / Current Liabilities

Number of days inventory= Inventories/[Cost of Goods Sold/365]

Number of days account payables= Account Payables/[Cost of Goods Sold/365]

3.6. Techniques of Data Analysis

The data analysis is done on the basis of quantitative data analysis technique. Statistical data analysis has been done by using MS Excel and SPSS version 22. We have employed descriptive statistical analysis, Correlation Analysis and Regression Analysis.

4. Findings and Discussion

4.1. Descriptive Statistics

The descriptive statistics of the variables used in this empirical analysis are presented in [Table 1](#).

Table-1. Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
ROA	50	-.0120	.4200	.090860	.0732783
CR	50	.47	9.81	1.8914	1.73141
ITP	50	4.0	200.0	86.060	55.4214
APP	50	.0	269.0	57.820	65.0631
Valid N (list wise)	50				

Source: Author's own estimation (SPSS Output)

The mean value of ROA is around 9% with a standard deviation of 7.32%. In addition, the variable ROA record a rather low variability as the value range from - 1.20 % to 4.20%. The mean value of CR is 18.91% with a standard deviation of 17.31 %, minimum value of CR is 47% and maximum is 18.92%. Variable ITP present a minimum of 400% and a maximum of 20000% with a standard deviation of 554.21% but it records with highest mean of 860.6%. Finally, variable APP, presents a very high variability, since its minimum value stands at 0% and maximum at 650.63%.

4.2. Correlation Analysis

The correlation Coefficient of Variables used in this study is presented in [Table 2](#).

Table-2. Correlations Coefficient of Variables used in the Model

Variables		ROA	CR	ITP	APP
ROA	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	50			
CR	Pearson Correlation	.393**	1		
	Sig. (2-tailed)	.005			
	N	50	50		
ITP	Pearson Correlation	-.297*	.216	1	
	Sig. (2-tailed)	.036	.132		
	N	50	50	50	
APP	Pearson Correlation	-.111	-.355*	-.328*	1
	Sig. (2-tailed)	.441	.011	.020	
	N	50	50	50	50

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

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

Source: Author's own estimation (SPSS Output).

Return on Asset (ROA) has positive correlation with Current Ratio (CR) ($r = 0.393$). Where Return on Asset (ROA) has negative correlation with Inventory Turnover Period (ITP) ($r = -0.297$) and Account Payable Period (APP) ($r = -0.111$).

4.3. Regression Analysis

The coefficient of correlation (R) of the model in the following Table 3 is 0.561, which states that there is a strong association between the dependent variables (ROA) and independent variable (CR, ITP and APP).

Table-3. Model Summary^b

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
0.561 ^a	0.501	0.481	0.0626148	2.083

a. Predictors: (Constant), CR, ITP, APP.

b. Dependent Variable: ROA

The adjusted R-square value of the above Table 3 is 0.481, which means that 48.1% variations of the dependent variable (ROA) is due to the explanatory variables (CR, ITP, and APP). Coefficient of determination (R-square) value is 0.501, which shows the highest percentage value that the explanatory variables explain 50.1% changes of Return on Asset (ROA).

The result of ANOVA is presented in the following Table 4. The value of F statistic of the model is 7.037 with P-value of 0.001 which is less than 1%. This indicates that the overall model used in this study is statistically significant.

Table-4. ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.083	3	.028	7.037	.001 ^b
Residual	.180	46	.004		
Total	.263	49			

a. Dependent Variable: ROA

b. Predictors: (Constant), CR, ITP, APP.

It further indicates that the explanatory variables Current Ratio (CR), Inventory Turnover Period (ITP) and Account Payable Period (APP) considered in the model have overall significant impact on Return on Asset (ROA).

Table-5. Coefficients^a

Independent Variables	Unstandardized Coefficients		Standardized Coefficients (β)	t	Sig.	95.0% Confidence Interval for β	
	β	Std. Error				Lower Bound	Upper Bound
(Constant)	.109	.024		4.513	.000	.060	.157
CR	.019	.006	.453	3.448	.001	.008	.030
ITP	-.001	.000	-.425	-3.266	.002	-.001	.000
APP	.000	.000	-.090	-.662	.511	.000	.000

a. Dependent Variable: ROA

In the above Table 5 the coefficient of Current Ratio (CR) is 0.019 representing that Return on Asset (ROA) could change by 0.019% for a one unit change in CR; it is statistically significant at 5% level of significance.

This confirms same direction found in the correlation analysis. Explanatory variable Inventory Turnover Period (ITP) has coefficient of -0.001 which is also statistically significant at 5% level of significance and confirming inverse direction found in correlation analysis. Lastly, the variable Account Payable Period (APP) has coefficient of .000, but it is statistically insignificant at 5% level of significance. Thus, the ROA is predicted with about 48.1% explanatory power by the following model:

$$ROA = 0.109 + 0.019 CR_{it} - 0.001 ITP_{it} + 0.000 APP_{it} + \mu_{it}$$

5. Conclusions and Recommendations

The study has investigated the relationship between working capital management and financial Performance for Pharmaceuticals and Textile firms listed at the Dhaka Securities Exchange in Bangladesh. Data have been analyzed for the time period of 2013 to 2017 and found a strong association between the Return on Asset (ROA) and Current Ratio (CR), Inventory Turnover Period (ITP), Account Payable Period (APP).

Our findings demonstrated that Current Ratio has positive impact on Return on Asset and Inventory Turnover Period has negative impact on Return on Asset. Both of these variables have significant impact on Return on Asset. Whereas Account Payable Period shows zero impact on Return on Asset but it is not significant. Future research could be carried out by considering other variables like Return on Investment, Gross Profit Margin, Management, size of the company, exchange rate among others.

6. Limitations of the Study

The size of the sample could have limited confidence in the results and this might limit generalizations to other situations. The study was also limited to one factor that affects the financial performance of a company. There are many other factors that affect the financial performance of a company e.g. Management, size of the company, exchange rate among others.

The study only used one measure of performance i.e. ROA. There are other ratios that are used to measure the performance of a company example Return on Investment, Gross Profit Margin. The study could only be conducted in several sectors leaving out critical sectors like financial services sector e.g. banks and insurance companies due to lack of inventory held at this sectors making the research not useful for such sectors. These results are therefore applicable to only specific sectors and any attempts to generalize findings should be reviewed with care.

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