THE IMPACT OF WORKING CAPITAL MANAGEMENT ON PROFITABILITY: TANZANIA PORTLAND CEMENT COMPANY LIMITED

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR THE DEGREE OF MASTER OF PROJECT MANAGEMENT OF THE OPEN UNIVERSITY OF TANZANIA

2017

CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation untitled: **"The Impact of Working Capital Management on Profitability**: **Tanzania Portland Cement Company Limited"** in partial fulfillment of the requirements for degree of Master of Project Management (MPM) of the Open University of Tanzania.

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Dr. Salvio E. Macha

(Supervisor)

……..

Date

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DECLARATION

I, **Hendrick Sigisbert Komba,** do hereby declare that this dissertation titled: "The Impact of Working Capital Management on Profitability: Tanzania Portland Cement Company Limited" is my own original work and that it has not been presented elsewhere for any academic award.

……..……

Signature

……..……

Date

DEDICATION

I dedicate this work to my parents, Mr. and Mrs. Sigisbert H. Komba for laying the base of my education. Without their love and sacrifices they made towards the performance of my education I would not be who I am today.

ACKNOWLEDGEMENT

Most thanks go to GOD the Almighty for his blessings and love he showed and giving me strength, wisdom and protecting me during the entire period of my studies. I take this opportunity to thank my family, mother, father and my youngest brothers for the determinedly support they have given me all the time during my studies. I am where I am because of them.

I express my deepest appreciation to my supervisor Dr S. E. Macha for his guidance, encouragement and constructive criticism towards the completion of this study. Last but not least, I would like to express thanks my Friends Mr. Godfrey Haonga, Stellah Tadei, Irene Cassy, Mwanuzi Babyegeya and others who have been a great support to my studies and they have been such good friends and a great company during the my entire studies have been together, I thank God for letting us meet.

To God; for giving me the strength and grace to get through this project, thank you for your unconditional grace.

ABSTRACT

The purpose of the study was to investigate the Impact of working capital management on profitability. The study employed a quantitative research design, which was useful in establishing the relationship of working capital management on profitability. A sample of 60 employees was taken and the financial statement for the period years, 2010 up to 2015 was used. However, a total of 45 responses were received. The study relied on both primary data, collected through a questionnaire, and secondary data collected from annual financial reports and financial statements of TPCC. The working capital management components used for the purpose of this study was, Accounts Payable Period (APP), Inventory Conversion Period (ICP) and Average Collection Period (ACP). Return on Assets was used as the alternate for profitability of the firm. The key findings from the study are; Firstly, there exists a significant negative relationship between average collection period and profitability indicating that an increase in the number of days affects the profitability of the firm; secondly, there exists a negative relationship between inventory holding period with profitability and negative relationship between accounts payable period and profitability. Also there exists a positive relationship between cash conversion cycle and profitability of the firm. Which indicates that as the cash conversion cycle increase it leads to an decrease in profitability of the firm. The study therefore recommends that managers of Tanzania Portland Cement Company Limited should manage their working capital in more efficient ways for reducing number of days inventory are held to an optimal level in order to improve their profitability of the firm. Managers of TPCC should also improve on their cash flow, through the reduction of their cash conversion cycle.

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LIST OF ACRONYMS AND ABBREVIATIONS

APP	Average Payment Period
CCC	Cash Conversion Cycle
CR	Current Ratio
GWCT	Gross Working Capital Turnover
HQ	Headquarter
ITD	Inventory Turnover in Days
NWC	Networking Capital
OUT	The Open University of Tanzania
QR	Quick Ratio
ROA	Return on Asset
ROCE	Return on Equity
TPCCL	Tanzania Portland Cement Company Limited
TZS	Tanzanian Shillings
TZ	Tanzania

CHAPTER ONE

INTRODUCTION

1.1 Background of the Organization

Tanzania Portland Cement Company Limited (TPCC), a subsidiary of the Heidelberg Cement Group is the largest cement producing company in Tanzania. Established in 1966 with the principal activity of manufacturing and selling cement. TPCC was nationalized in 1978 and later privatized in 1998. Heidelberg Cement via Scancem International DA is TPCCs' major shareholder currently holding 69.25% of shares, the remaining 30.75% shares are owned by the general public of the United Republic of Tanzania. The shares of TPCC are actively traded on the Dar es Salaam Stock Exchange (DSE).

Since its inception, TPCC has produced high Quality Cement conforming to the standards issued by Tanzania Bureau of Standards (TBS). The company currently produces three brands of cement, Twiga Extra (32.5R), Twiga Plus+ (42.5N) and Twiga Ordinary (42.5N). An expansion project, the construction of a new Cement Mill (CM5) completed in 2014, shall further consolidate TPCC's market position and expects an increase in production capacity to 1.9million metric tons per year. This cement mill has been a milestone in TPCCs quest to deliver quality services and is satisfying the technical requirements of the business.

1.2 Background of the Study

Working capital management is essential to survive because of its effects on a firm's profitability and risk, and consequently its value According to (Smith, 1980). WCM is

the investment in current assets and current liabilities, which are liquidate in a year or less and is very crucial for a firm's day-to-day operations according to (Kesimli and Gunay, 2011).

According to Ramachandran and Janakiraman (2009), Working Capital is the flow of ready funds necessary for the working of a concern. They stated that the working capital comprises the funds invested in current assets and current liabilities. According to the Falope and Ajilore (2009), define WC is the firm's investment in short term assets. They emphasize that assets are the means of support of a business enterprise largely due to their importance in the production and sales activities. It was that the management of these assets is called Working Capital Management. The Efficient management of Working Capital (WCM) is very essential in the overall corporate strategy in creating shareholders value (Afza and Nazir, 2009), agree with this view, According to Eljelly (2004) states that WCM involves planning and calculating current assets and current liabilities in a manner that eliminates the risk of failure to meet due short term obligations on one hand and avoid unnecessary investment in current assets on the other hand.

Cash is the common factor in all business unity small and large. Thus money management is generally known as financial management. Proper management invested funds in a business that results in effective financial management. Every business unit needs funds for two purposes (I) for establishment and (II) for run its day to day operations. Long term funds are required to facilitate production through purchase of fixed assets such as land, plant and machinery, building and furniture. and also for expansion of business, transformation or improvement of plant and machinery

and research and development. The part of firm capital which is blocked on a permanent basis is called fixed capital. Funds needed for short term purposes for the purchase raw materials, payment of wages and for meeting everyday expenses. All the goods, which are produced in a given time period may not be sold in that period. Therefore, some goods remain in stock, such as raw material; semi finished goods and finished goods. These funds are known as working capital. The working capital management refers to all aspects of current assets and current liabilities. The management of a working capital is of great importance not less than the importance of management of fixed capital.

1.3 Statement of Problem

From the previous researchers most of them they have found that there is the negative impact on working capital management in the relation to the profitability of the firm, according to Shin and Soenen (1998) They found a strong negative relationship between lengths of the firm's net trading cycle and its profitability.

According to Jose, et.al (1996) examined the relationship between aggressive working capital management and success of US firms using Cash Conversion Cycle as the measure of working capital management. The results indicate a significant negative relationship between the Cash Conversion Cycle and profitability representing that more destructive working capital management is associated with higher profitability. According to Deloof (2003), found a significant negative link between gross operating income and the number of days accounts receivable, inventories and accounts payable of firm.

Few of them such as Raheman and Nasir (2007) have identified that the positive relationship between size of the firm and its profitability, According to Samilogu and Demirgunes (2008) found that any boost in sales lead profit to grow up, while any increase in debt causes profitability to fall.

However, from the empirical study reviewed it's clear that, working capital is the most important factor for maintaining liquidity, survival, solvency and profitability of the firm. The impact of working capital management on profitability is highly important because firm is compulsory matching between risk and efficiency to achieve an optimal level of working capital. When there is a excess working capital, it may lead to avoidable purchasing and accumulation of inventories causing more chances of stealing, waste and losses. Inadequate of working capital, the firm cannot handle to pay day to- day expenses of its operations of the firm and it creates inefficiencies, increases costs and reduces the profits of the business. Working capital management effectiveness straight affects the firm profitability and liquidity of firms.

Therefore, efficient management of working capital is a primary part of the overall corporate strategy to create shareholder value. In general, firm make an effort to keep an optimal level of working capital that maximizes their value. When a firm increase profit at the cost of liquidity the results can bring serious problems to the firm. Therefore, there must be a swap between these two objectives of the firm. If we do not care about profit, we cannot survive for a longer period. On the other hand, if we don't care about liquidity, the firm may face the problem of insolvency or bankruptcy. For these reasons working capital management (WCM) should be given the proper consideration and would eventually affect the profitability of the firm.

1.4 Objectives of the Study

1.4.1 General Objective

The general objective of the study was to examine the Role of working Capital Management on Profitability at Tanzania Portland Cement Company Limited. The study was to improve the finance literature between working capital management and profitability of the firm.

1.4.2 The Specific Objectives

(i) To analyze the determinants of profitability

(ii) To evaluate the effect of inventory management on firms performance

(iii) To examine the collective impact of working capital on profitability.

1.5 Research Question

(i) Is there any relationship between Working Capital Management and profitability of firm?

(ii) What is the effect of inventory management on firm performance?

(iii) What is the impact of working capital on profitability?

(iv) What are the factors affecting the working capital requirement?

1.6 The Scope of Study

In accordance with the environment of this study, the researcher considered the following groups of people to be involved in this study. The first group was the Top management who are the controller of the organization. The second group was the middle to lower level staff whose are the central part of the organization. The third group contains the operation people that are involved day to day activities in the

company. The fourth group contains staffs who are not directly involved in the operations.

1.8 Significance of the Study

The study will contribute to the body of knowledge by providing empirical evidence about the Impact of Working Capital Management on Profitability .The study will fulfill researcher's academic need of acquiring Master Degree of Project Management (MPM). Furthermore, the researchers will identify the gaps available for further studies. Similarly, the findings of the study will be useful to practitioner, academics and other stakeholders in different organizations as an important reference material.

1.9 Limitation of the Study

Limitations that are expected to be encountered by the researcher are:

(a) Time constraint

The time scheduled to carry out the research study is very short to be able to collect adequate data and satisfy the motive behind the study.

(b) Budget constraint

The funds were inadequate as per study requirements. Hence the researcher was conducting the study in accordance with the fund provided by the sponsor and his personal fund.

CHAPTER TWO

LITERATURE REVIEW

2.1 Working Capital Management Definitions

According to Eljelly, 2004, working capital management requires planning and controlling current assets and current liabilities in such a way that eliminate the risk of incapacity to meet short term liabilities and avoid excessive investment in these assets. Working capital management is important because of it causes firms' profitability, risk, and consequently its value, according to (Smith, 1980). The larger investment in current assets, the lower the risk, but also the lower the profitability obtain. Different to this, Carpenter and Johnson (1983) were provided empirical evidence that there is no linear link between the level of current assets and revenue efficient risk of the US firms; however, some indications of a possible nonlinear link were found and were not extremely statistically important.

Working capital refers to the money that utilized by business firm in their daily activities or operations. Working capital is the available capital for the firm to conducting day-to-day operations of an organization represented by its net current assets according to (Adeniji, 2008). In the same vein, Akinsulire (2008), describe that working capital refer to the capital that are required for the facilitation day-to-day production of goods to be sold by a company.

According to Pandey (2000), has tried to make a distinction between gross working capital (GWC) and net working capital (NWC). Gross working capital refers to the firm investment in current assets. Current assets can be transformed into cash within

accounting year of operation (or operating cycle) and that include cash, debtors (accounts receivables), bills receivable, short-term securities and Inventory stock. Net working capital refers to the difference between current assets and current liabilities.

Current liabilities refers to those firm debts or obligation which are expected to mature for payment within accounting year of operation and include accounts payable, bill payable, and outstanding expenses according to (Pandey, 2000). Net working capital can be negative or positive. Net working capital is positive when currents assets go beyond the current liabilities. It is negative when current liabilities go above current assets. The most standard definition of Net Working Capital (NWC) refers to the difference between current assets and current liabilities. Alternative definition of NWC is that portion of current assets which is finance by the long term funds. The Net Working Capital (NWC) measure of the liquidity is not very useful for comparing the performance of different firms, but it is very helpful for internal control. The NWC contributes enormously while compare the liquidity of the same company after a while. For the main reason of working capital management, therefore Net Working Capital is projected to measure the liquidity of the company. Meanwhile, the focus of working capital management is to manage the current assets and liabilities so that an acceptable level of NWC is sustained.

A large number of business failures have been endorsed to incapacity of financial managers to plan and control properly the current assets and current liabilities of their relevant firms According to (Smith, 1973). Due to be deficient in of a proper plan for working capital requirements most firms often experience excess working capital or shortage of working capital (Agarwal 1977).

When any company retains its liquidity through borrowing, then there exists a change between the profit earned from the investments in the assets that was financed from borrowing and the interest payable to creditors. Ultimately, it can be believed that the too much little level and too high level of liquidity, both have costs associated with them (Yeager and Seitz, 1989).

Shin and Soenen (1998) have been suggested that the efficient working capital management was very important for creating the shareholders value. The way working capital was managed had a significant impact on both profitability and liquidity. By using the correlation and regression analysis they justified the relationship between the length of net trading cycle, the corporate profitability and risk adjusted stock return. They found a strong negative relationship between lengths of the firm's net trading cycle and its profitability. In addition, they also found that a shorter net trade cycle was associated with higher risk adjusted stock returns.

2.2 Theoretical Framework

According to Mongrut et al, (2008), said that the Cash Conversion Cycle (CCC) provides a theoretical background for the determinants of working capital management. Working capital connotes the funds, which are used to operate in the short term of the operation to the firm. In the same vein, According to Nimalathasan (2010) argued that the academic background for relationship between working capital management and profitability is that most of the firms have a large amount of cash invested in working capital, as well as the substantial amounts of short term payables as a financing option. The firms have a best possible level of working capital that maximizes their value of the firm. Decisions relating to working capital management

and short term financing are referred as working capital management. The management of working capital involves supervision inventories, Accounts receivable and Account payable, and cash. Implement an effective working capital management system is an exceptional way for various companies to recover their earnings (Nimalathasan, 2010). The Cash Conversion Cycle (CCC) is calculated or determined by subtracting the payables delay period (360/annual payables turnover) from the sum of the inventory period (360/annual inventory turnover) and the receivables period (360/annual receivables turnover). More recently, number of days per year that appears to the denominator as 360 has been replaced by 365 to improve accuracy. Since each of these three (3) components is denominated by some number of days, the Cash Conversion Cycle (CCC) is also expressed as a number of days.

2.3 Determinants of Working Capital

The total working capital requirements of a firm is determined by a number of factors, some endogenous and others exogenous. These factors, again, may vary from one firm to firm another and over a period of time. In general, the following factors are to be considered while determining the working capital requirement of a firm: The nature of business, scale of operation, production, business cycle, seasonality and production policy, credit policy, growth and expansion, rise in price level, operating efficiency, and availability of raw materials, depreciation policy, taxation, dividend policy, and retention policy. Mansoori and Muhammad (2012), while analyzing the determinants of WCM among Singapore firms using random and fixed effects, identified firm size, operating cash flow, capital expenditure and gross domestic products as negatively correlated with WCM.

However, they found that firms with more profitability have longer cash conversion cycle. Additionally, they found a non-significant relationship between CCC and debt ratio. Chiou and Cheng (2006) attempted to determine the critical factors affecting WCM in Taiwan's firms. The study captured micro-economic variables and firm-specific variables. They found that debt ratio, operation cash flows to total assets are negatively correlated with working capital management, while firms' age and return on assets (ROA) and WCM positively correlated. Additionally, their finding indicated that during the economic slump firms have more WCM requirements. Zariyawari et al (2010) investigated determinants of WCM in Malaysian firms using pooled by OLS regression. They reported that firm size, debt ratio, and sales growth negatively correlated with CCC. In addition, their judgment revealed that firms with more debt tend to reduce working capital since the cost of external financing is higher for those firms.

2.4 Empirical Review

2.4.1 Models and Theories from other Researchers

Many researchers and scholars alike have studied working capital from different stand points and in different environments. The following are some of the many works of effective working capital management. Madishetti and Kibona (2013) studied the impact of receivable and payables management on ROA of Small and Medium Enterprises (SMEs) in Tanzania by using a sample of thirty eight (38) Small and Medium Enterprises (SMEs) from Dar-Es-Salaam and Morogoro regions. They obtained data from the financial statements for the period of five (5) years from 31st March 2006 to March 2011. ACP and APP used as independent variables. Pearson

correlation coefficient was employed to investigate the relationship between ROA and these two independent variables.

Authors found that: - As ACP decreases enable turnover to increase hence ROA increases also. This implied negative relationship between ACP and ROA. Also Madishetti and Kibona (2013) found positive correlation between ROA and APP. This implies that when APP decreases ROA decrease as well and when APP increases ROA increase also.

Panigrahi (2013) researched the relationship between inventory management and ROA. Empirical analysis of Indian cement companies employed as a case study. A selected sample composed of five (5) top Indian cement companies over a period of ten (10) years from 2001 to 2010. Panigrahi (2013) employed regression analysis model to assess the relationship between inventory management and ROA and found that there is a significant negative linear relationship between inventory conversion period and ROA.

Nzioki et al. (2013) examined the effect of working capital management on the ROA of manufacturing firms listed on Nairobi Security Exchange (NSE). The population of the study comprised of nine (9) manufacturing companies listed on NSE. Multiple regression and correlation analyses were conducted to assess the relationship between the components of working capital management and ROA. The result shows that the ROA was positively correlated with ACP and APP but negatively correlated with CCC, but the relationship between ITID and ROA was insignificant.

To test the relationship between working capital management and corporate profitability, Soekhoe (2012) used a sample of seventy (70) firms that are listed in Euro next from the period of 2006 to 2010. Soekhoe (2012) employed correlation and regression analysis techniques to explore the relationship between the variables and found that, there is a significant and negative relationship between the profitability of Dutch listed firms and the number of day‟s accounts payables and the number of day‟s accounts receivables.

Napompech (2012) collected a sample of 255 firm‟s data set from the stock exchange of Thailand for the period of three years from 2007 to 2009. The data set comprises of annualized sale revenue, cost of goods sold, total assets, financial assets, inventory conversion period, average collection period, payable differed period, cash conversion period and debt ratio. The 255 firms comes from seven (7) industries like consumer products, industries, technology, agriculture and food resources, construction and building materials and service.

Napompech (2012) used descriptive statistics, correlation and regression analyses to explore the relationship among variables. The results indicated that, there is a negative relationship between ROA and inventory conversion period and receivables collection periods. Not only that but also findings demonstrated that, industry characteristics have an impact on ROA.

Kimeli (2012) used a sample of nine (9) listed manufacturing firms trading on NSE. Research data were obtained from the consolidated financial statements for the period of five years from 2006 to 2010. Multiple regression and correlation analyses were

employed to explore the relationship between working capital components and GOP of the selected companies. The researcher found that ROA positively correlated with ACP and APP but negatively correlated with CCC. Also Kimeli (2012) indicated that there was insignificant relationship between ROA and ITID.

Venkataramana, Ramakrishnaiah and Chengalrayulu (2013) investigated the impact of receivables management on working capital and profitability among four selected cement companies in India. Data were collected from the financial statements of the selected companies for the period of ten years from 2001 to 2010. Working capital and profitability were considered as dependent variables while Receivables to Current assets ratio, Receivables to total assets ratio, Receivables to Sales ratio, Receivables turnover ratio, Average collection period, Working capital ratio and Profitability ratio were considered as independent variables.

Analysis of Variance (ANOVA) was employed to explore the relationship between variables. The study indicated that receivables management has significant impact on working capital and management. Rehman and Anjum (2013) examined the impacts of working capital management on profitability. The study was empirical study from the cement sector in Pakistan which consists of a sample of ten cement companies listed at Karachi Stock of Exchange. Data were collected from the financial statements for the period of six years from 2003 to 2008. Correlation and Regression analyses were employed to analyze between independent and dependent variables. The results indicated inverse and positive relationship between working capital management and profitability in cement industry of Pakistan.

To investigates the Impact of working capital management on profitability, Arshad and Gondal (2013). They used a sample of 21 listed cement companies in Karachi Stock Exchange. The analysis consisted of financial statement for the period of seven years from the year 2004 to 2010. Quantitative research method employed to confirm research hypothesis. Current ratio, Quick ratio, Net current assets to Total assets ratio, Working capital turnover ratio and Inventory turnover ratio used as Independent variables while profitability as dependent variable. The researcher employed simple liner regression analysis to explore the relationship among variables and found significant relationship between working capital management on profitability of the firms.

Shin and Soenen (1998) declared that efficient working capital management (WCM) was very important for creating value for the shareholders. They found a strong negative relationship between lengths of the firm's net trading cycle and its profitability. Samilogu and Demirgunes (2008) worked on the effect of working capital management on firm profitability in Turkey for the period 1998 – 2007. The finding indicated that account receivable period and Inventory period have significantly negative effects on firm profitability. This means that while these variables get longer in periods, profitability decreases, or vice versa. Furthermore sales growth and leverage that had significant effect on profitability also affected it positively and negatively respectively. This means that any increase in sales leads profits to grow, while any increase in debt causes profitability to fall.

While Rehman (2006) studied the impact of the different variables of working capital management including Average Collection Period, Inventory Turnover in Days,

Average Payment Period and Cash Conversion Cycle on the Net Operating Profitability of firms in Pakistan and concluded that there was a strong negative relationship between working capital ratios and profitability of firms. Furthermore the study stated that managers can create a positive value for the shareholders by reducing the cash conversion cycle up to an optimal level.

Raheman and Nasir (2007) have studied the effect of working capital management on liquidity as well as on profitability of the firm. The results showed that there was a negative relationship between variables of working capital management and profitability of the firm. Further study also found that there was a negative relationship between liquidity and profitability and a positive relationship between size of the firm and its profitability and negative relationship between debt used by the firm and its profitability. Jose, et.al (1996) examined the relationship between aggressive working capital management and profitability of US firms use Cash Conversion Cycle (CCC) as a measure of working capital management. The results indicated a significant negative relationship between the Cash Conversion Cycle and profitability indicating that more aggressive working capital management is associated with higher profitability. In an effort to investigate the predictive power of working capital management on profitability of listed firms in Nigeria, Egbide (2009) in a cross sectional survey design, used a 50 firm-year observations extracted from the annual reports and accounts of 25 non-financial quoted companies during the period 2005-2006.

The Ordinary Least Square Regression analysis was employed in the analyses of the data guided by a sample of multiple regression models. The results showed a

combined predictable power of working capital components on profitability is significant. In addition, the results revealed that Inventory Conversion Period (ICP), Debtors Collection Period (DCP) and Creditors Payment Period (CPP) affect profitability, albeit only DCP has a significant effect, thus demonstrating the importance of the different components of working capital in profit determination.

Deloof (2003), using correlation and regression tests, found a significant negative relationship between gross operating income and the number of days accounts receivable, inventories and accounts payable of Belgium firms. On the basis of these results, managers could create value for their shareholders by reducing the number of days' accounts receivable and inventories to a reasonable minimum.

2.4.2 Working Capital Theories

There are various theories that support the significance of working capital. Some of the most important theories pertinent to working capital management include the following:

Quantity Theory of Money

According to the 'quantity theory' money is held only for purpose of making payments for current transactions (Keynes, 1973). This theory was proposed by Irving Fisher in 1911. Fisher's version of the quantity theory can be explained in terms of the equation of exchange model. $MV = PT$ …… (i)

Where M is the nominal stock of money in circulation, V is the transaction velocity of circulation of money, that is, the average number of times the given quantity of money changes hand in transactions, P is the average price of all transactions and T is the

number of transactions that take place during the time period. Both MV and PT measure the total value of transactions during the time period and so must be identical. Thus, 'the equation' is really an identity, which must always be true; it tells us only that the total amount of money handed over in transactions equal to the value of what is sold.

The Modern Quantity Theory

Milton Friedman restated the quantity theory of money in 1956 as a theory of demand for money and this modern quantity theory has become the basis of news put forward by monetarists (Copeland et al, 2005). In this theory, money is seen as just one of a number of ways in which wealth can be held, along with all kinds of financial asset consumer durables, property and human wealth. According to Friedman, money has a convenience yield in the sense that its holding saves time and effort in carrying transactions.

2.5 Conceptual Framework

Figure 2.1 presents schematic conceptual framework of the relationship between working capital management measures and profitability of firms

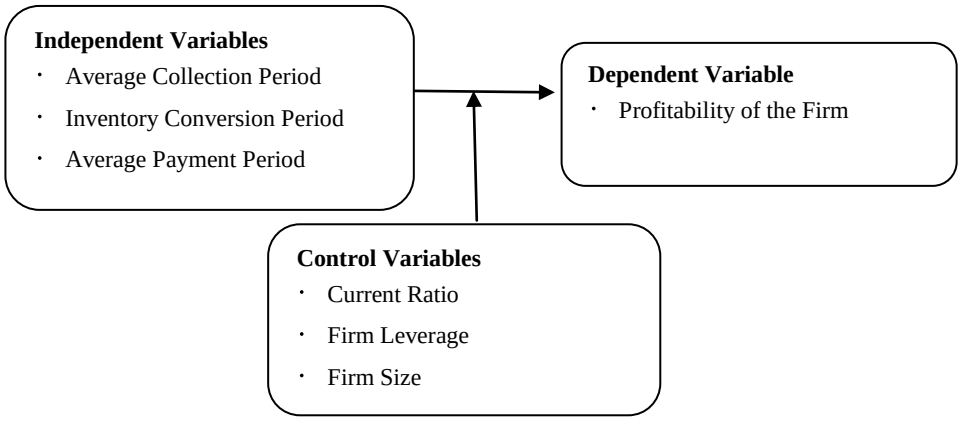

Figure 2.1: Conceptual Framework

Source: Researcher (2016)

For further elaboration, the variables in the conceptual frame work and their relationships including roles of control variables are fully explained in research methodology chapter.

2.6 Summary of the Chapter and Knowledge GAP

This chapter started with an overview of working capital in which its nature and importance of working capital, concept and definition of working capital and types of working capital. Working capital management (WCM) and different components of WCM, which are accounts receivable, inventory, accounts payable and cash conversion cycle are mentioned. Also, working capital theories are discussed. Afterwards the different WCM policies in which a firm can pursue are discussed. Then the WCM, profitability and liquidity with its measurement was described. Finally, Prior research in the field was described.

Generally, the literature review indicates that working capital management has impacts on profitability, liquidity and performance of a firm. Even if, the literature review indicated that working capital management has impact on the profitability, liquidity and performance of firms but there still is ambiguity regarding the appropriate variables, hypotheses and effect size measures that might serve as proxies for working capital management as a whole. From the empirical study listed above it could be depicted that working capital have impact on profitability. Mathuva (2009) found out that shortening days in collection period would result in increase on profitability and further noted that companies with shorter accounts payable period are less profitable and quick turn of inventory would increase profitability. In another

way, Sharma and Kumar (2011) found that WCM and profitability is positively correlated. Their study reveals that ARP and CCC exhibit positive relationship within profitability as well days account payable and inventory of number of days are negatively correlated with firms profitability. Tewodros (2010) also suggested that reduction of CCC and quick turnover of inventory would increase profitability.

Tiringo (2013) also suggested that firms with shorter account payable period are less profitable. It is clear from the empirical evidence; there are no common results on the impact of WC on profitability. This may be due to lack of not incorporating all relevant and most important variables used to measure both WC and profitability. Therefore, this study included the major important variables and provides useful support for better understanding of the impact of management of working capital on profitability Firm.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Philosophy

For the purpose of this study both research philosophy were used that are quantitative and qualitative. The researcher use quantitative design to obtain different measurements of data and qualitative design to obtain different views and opinions from people.

3.2 Research Design

Research design is the conceptual structure within which research was conducted. The function of research design is to provide for the collection of relevant information with minimal expenditure of effort, time and money (Ranjit, 2005). Research design is one of the most important tasks in carrying out the survey. Explanatory research design was adopted in this study to investigate the impact of working capital management on profitability Tanzania Portland Cement Company Limited (Headquarters). Research design allow researcher to analyze the relationship between working capital management and profitability.

3.2.1 Area of the Study

The study was conducted at Tanzania Portland Cement Company Limited (Headquarters). The area has been chosen because the researcher is so familiar and the company is been listed at Dar es Salaam stock exchange was easily accessible and researcher might achieve high response rate of the questionnaires.

3.2.2 Population of the Study

According to Kothari (2007), the term population means an entire group of individuals, events or objects that have common observable characteristics. It refers to all elements that meet certain criteria for inclusion in a given universe. The study used case study based approach and targeted population was employees of Tanzania Portland Cement Company Limited (Headquarters) that comprises 360 employees. A total of sixty (60) employees from Management team who are the prime control of the firm. The second group will be the Finance and accounting department who are responsible to produce the report of the firm. The third group contains the shareholders who have invested the fund .The fourth group contains Tanzania Portland Cement Company Limited staffs who are directly involved in the operations day to day activities for the study.

3.2.3 Sample and Sampling Technique

According to Kothari (2007) sample is a collection of some parts of the population to be a true representative of the population. Sample size refers to a number of items to be selected from the population. While sampling technique defined as a process of selecting a number of individual or objects from a population such that the selected group contains elements representative of characteristics found in entire group (Kothari, 2007). Sampling can be probability or non-probability. In probability sampling, there is equal opportunity for all the elements to be selected, while in non-probability sampling, no equal chance for the element to be selected. In this case, purposive sampling technique was used. With this type of sampling, researcher exclude all staff with less than one year in the organization to get a valid conclusion.

3.3 Research Variables

Variables are properties or characteristics of people or things that vary in quantity or magnitude from person to person or from object to object. In another word, variable is anything that can take on a variety of different values. For example gender is a variable because it can either be male or female and is possible to assign value. Attributes are the variation in a variable. For example attribute self-esteem can take different forms like high, medium and low level. There are two types of variables which are independent and dependent variables as discussed later. In my study variables used have been selected based on previous researchers‟ study and are presented below:

3.3.1 Independent Variable

An independent variable is the one, which is free from the outcome being measured. Independent variable is manipulated by researcher and observing the outcomes.

(i) Average Collection Period

Trade receivable is amount a company needs to collect from customers. The aim of offering credit policy is to increase sales and provide stiff competition against rivals.

The efficiency of debtor‟s collection can be assessed in number of days a company took to collect from the customers. So, the credit policy can be assessed in this way, if the company takes a long period in collecting its debtors it means that the credit policy is not effective and may results into bad debts. But if the company take fewer days in collecting from customers is not good also since it may lose sale revenue due to lose in market share. The company needs to prepare credit policy which yield optimal results. Receivable collection period is calculated as follows:

Average collection period (ACP) = Average Receivable x 365

days Credit sales

(ii) Average payment period

Trade payable is the amount to be paid to the suppliers of goods and services purchased within a specified period of time. When a credit period is offered to the company by suppliers, it provides an opportunity for company to maintain liquidity and to maintain finance with other expenses. Average payment period can be calculated as follows: -

Average payment period (APP) = Average Payables x 365

days Credit purchase

(iii) Inventory turnover in days

Inventory means a list compiled for some formal purpose, such as the details of an estate going to probate, or the contents of a house let furnished (Madishetti and Kibona, 2013). Inventory can take different forms like raw materials, work in progress or finished goods. Inventory takes the largest portion of manufacturing industries. Inventory management is primarily about specifying the shape and percentage of stocked goods. The higher the level of inventory turnover in days is not good because it increase the storage cost. Inventory turnover in days is calculated as follows: -

Inventory turnover in days (ITID) = Average inventory x 365 days

Cost of sales

(iv) Cash conversion cycle

The Cash Conversion Cycle (CCC) measures how fast is the company can convert cash on hand into even more cash on hand. The CCC does this by following the cash

as it is the first converted into inventory and accounts payable, through sale and accounts receivable and then back into cash. It is thus a measure of the liquidity risk entailed by growth (Myers, 2003). The Bloomsbury Business Library - Business & Management Dictionary defines the cash conversion cycle as the time between the acquisition of a raw material and the receipt of payment for the finished product. Cash conversion cycle can be calculated as follows:

Cash conversion cycle = Average collection in days + Inventory turnover in days – Average payment in days.

3.3.2 Dependent Variables

Dependent variable is the measure of the effect of the independent variable. The term dependent variable means it is influenced by independent variable. It is also known as response variable or output. Based on my study the dependent variable is discussed based on previous researchers‟ work as follows: -

(i) Return on assets (ROA)

Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing a company's annual earnings by its total assets, ROA is displayed as a percentage. Sometimes this is referred to as "return on investment".

The formula for return on assets is:

$$= \frac{\text{Net Income}}{\text{Total Assets}}$$

Generally a high profit margin means ability of the company to keep its cost to a minimal level is high. The reason for using this variable was because the study aimed to associate the company‟s operating „success‟ or 'failure' with an operating ratio and relate this variable with other operating variables. (Madishetti and Kibona, 2013).

3.3.3 Control Variables

A control variable is the one that is held fixed in order to determine the relationship between independent and dependent variables. A control variable in an experiment may affect either positively or negatively the research outcome. Spector and Brannick (2013). Explain that roles of control variables, as to intend to purify the observed relationship among variables of interest and to avoid contamination in measurement of variables of interest. Care should be placed in order to avoid the effect of control variable. Control variables refer to variables that are fixed or eliminated in order to clearly identify the relationship between an independent variable and a dependent variable. In my study the following variables were controlled in order to come up with valid output.

(ii) Company size

Size of the firm can influence the firms‟ performance in several ways through creating of goodwill which enable the company to earn huge market share. Also size of the firm may facilitate building strong distribution systems or channels so as to access easily consumers. Company size may motivate lenders to advance loan when needed by the firm. According to Buveld (2012) measure the firms size as a natural logarithm of sales (ln of sales).

Size of the firms = Natural logarithms of sale

$Sale_t$ = Current sales value

$Sale_{t-1}$ =Previous sales value

(iii) Sale growth

Sale growth is ability of the firm to generate more revenue in the current financial year in comparison with the previous financial year. Makori and Jagongo (2013) measure sales growth as follows: -

$$\text{Sale growth} = \frac{Sale_t - Sale_{t-1}}{Sale_{t-1}}$$

Where

$Sale_t$ = Current sales value

$Sale_{t-1}$ =Previous sales value

(iv) Current ratio

The current ratio measures the adequacy of current assets to meet the liabilities as they fall due. A high or increasing figure may appear safe but should be regarded with suspicion as it may be due to high level of inventory and receivables and high cash levels which could be put to better use like investing in non-current assets. Makori and Jagongo (2013) measure current ratio as follows: -

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

3.4 Procedures for Data Collection

According to Kothari (2007), procedure for data collection defined as a guideline for the collection, processing and analysis of data from selected population.

3.4.1 Types of Data

The task of data collection follows after a research problem has been defined and research design chalked out (Kothari, 2007). In these research two types of data, namely primary and secondary data were collected.

3.4.1.1 Primary Data

The primary data are those, which are collected afresh and for the first time and thus happen to be original in character. In this study, primary data was collected from respondents through questionnaires, interview and observations. Questionnaires were specifically designed to answer research questions and attain research objectives.

3.4.1.2 Secondary Data

Secondary data, on other hand are those which have already been collected by someone else and which have already been passed through statistical process. Sources used to gather secondary data were document analysis collected from published and unpublished firm documents and subject-relevant literature, internal company journals, articles, reports (monthly reports) requested from the company under study.

3.4.2 Methods of Data Collection

3.4.2.1 Questionnaire

Questionnaire is a set of questions, which are usually sent to the selected respondents to answer at their own convenient time and return the filled questionnaire to the researcher. The reason for using questionnaire includes its ability to cover a large sample size at a low cost and give a respondent adequate time to give well though-out answers. (Saunders, Lewis & Thornhill, 2012). Questionnaire was divided into 2

sections. First section seeks to obtain the personal information of the respondents while second section contains the questionnaire of the subject matter. Questionnaire was close-ended questions.

3.4.2.2 Documentary

Text documentary were collected from, internet, reports produced, books, journals, research articles and magazines were used to search useful information and facts about the study.

3.5 Data Processing and Analysis

Data were collected, summarized and analyzed using Ms Excel (2007) and Software Package for Social Scientist (SPSS) Version 22. Both Pearson Correlation Coefficients and Multiple Regression Analysis were used to analyze the data. Content analysis used to obtain descriptive statistics (including mean and standard deviation) to draw conclusion for the study. The research findings were organized and presented in form of words and numbers by using frequency tables, charts and simple percentage method.

3.5.1 Regression Analysis

Regression model is used to predict one variable (dependent variable) from one or more other variables (independent variables). In this part the researcher presented the empirical findings on the relationship between working capital management and profitability of the firm. To find out the impact of working capital management on profitability, the model used for the regression analysis is expressed generally as:

ROA = *f* (ACP, APP, ITID, CCC, CS, SG)

In the above general equation the ROA is the dependent variable and it is influenced by the independent variables i.e. ACP, APP, ITID, CCC, CS, SG

Regression analysis is concerned about exploring the relationship between independent and dependent variables while correlation measure the relationship between independent and dependent variables. The control variables in this study are company size (CS), sales growth (SG). Four models were developed in order to verify the research questions, these models are as follows:

Models number one

This model tests the relationship between ACP and ROA.

$Y_{ot} = \alpha + \beta_1 ACP_{ot} + \beta_2 CR_{ot} + \beta_3 CS_{ot} + \beta_4 SG_{ot} + e$

Model number two

This model explains the relationship between APP and ROA.

$Y_{ot} = \alpha + \beta_1 APP_{ot} + \beta_2 CR_{ot} + \beta_3 CS_{ot} + \beta_4 SG_{ot} + e$

Model number three

The third test model, it tested the relationship between ITID and

ROA. $Y_{it} = \alpha + \beta_1 ITID_{ot} + \beta_2 CR_{ot} + \beta_3 CS_{ot} + \beta_4 SG_{ot} + e$

Model number four

The fourth model, it tested the relationship between CCC and ROA.

$Y_{it} = \alpha + \beta_1 CCC_{ot} + \beta_2 CR_{ot} + \beta_3 CS_{ot} + \beta_4 SG_{ot} + e$

Where by:

α = Constant term for the independent variables

Y = Gross operating profit

ACP = Average collection period

CR = Current Ratio

CS = Company size

SG = Sale growth

ITID = Inventory turnover in days

APP = Average payment period

CCC = Cash conversion cycle

e = the error term

β = Regression coefficient model

3.6 Reliability and Validity of Data

Reliability defined as the extent to which results are consistent overtime ((Saunders, Lewis & Thornhill, 2012). Reliability has to do with accuracy and precision of measurement procedures. Validity implies applicability and usefulness of the data obtained through such reliable design and all the way to conclusive findings (Kothari, 2007). Pilot study was done to test whether the tools are truly measuring what they intended to measure (Kothari 2007). Reliability of the tool was made by piloting the questionnaires before a comprehensive exercise of data collection to see if the tool can give consistent response from different respondents.

3.7 Ethical Issues

Ethical refers to the standards of behavior that guide researchers' conduct in relation to the rights of those who become the subject of research, or are affected by it (Saunders,

Lewis & Thornhill, 2012). In this study, the researcher ensured that there is confidentiality of the data provided by the respondents. In addition, researcher ensures anonymity of participant's identities. Before collecting the data, respondents were informed the purpose of the study and the way the results were used for.

CHAPTER FOUR

FINDINGS AND ANALYZING DATA

4.1 Introduction

This chapter analysis, present and findings of the study as set out in the research methodology. The study findings were the impact of working capital management on profitability Firm.

4.2 Analysis of Response Rate

A total of 60 respondents comprising of 10 business owners, 10 top managers shareholders 10 and staff direct involve to the business 35 Tanzania Portland Cement Company Limited were given questionnaires. Out of this, 45 responded representing a response rate of 75%.

Table 4.1: Response Rate

Category	**Sample Size**	**Response**	**Percentage Rate**
Management Team	10	8	80
Finance and Accounting	15	13	86.67
Shareholder	5	3	60
Staff Involve in Business	30	21	70
Total	**60**	**45**	**75**

Source: Research Data, 2016

4.3 Gender of the Respondents

According to the findings for the gender respondents, 60% of the respondents were male while 40% of the respondents were female. This is as shown in the Table 4.2.

Table 4.2: Gender (Male and Female) of Respondents

Male	Female
60%	**40%**

Source: Survey Data, 2016

4.4 Position in Organization

According to the findings from the respondents of organization, 33.3% of the respondents were supervisors, 5.4% of the respondents were marketers while 53.3% of the respondents were others and 8.9% was Sales Representative. This is as shown in the Table 4.3.

Table 4.3: Position of Organization

Position	Frequency	Percent
Supervisor	15	33.3
Marketer	2	4.4
Sales representative	4	8.9
Others	24	53.3
Total	**45**	**100.0**

Source: Survey Data, 2016

4.5 Age of Respondents

According to the findings the researcher has found as follow from the respondents, 15.6% of the respondents was aged between 21-25 years, 15.6% of the respondents was aged between 26-30 years, 35.6% of the respondents was aged between 31 -39 years, 33.3% of the respondents was aged between 40 to above. This is shown in the Table 4.4.

Table 4.4: Age Respondents

Age	Frequency	Percent	Cumulative Percent
21-25	7	15.6	15.6
26-30	7	15.6	31.1
31-39	16	35.6	66.7
40- to above	15	33.3	100.0
Total	**45**	**100.0**	

Source: Survey Data, 2016

4.6 Academic Qualification

The studies also find out the academic qualification of the respondents. According to the findings, 13.3% of the respondents had Diploma qualification, 77.8% had Degree, 8.9% had Masters degree qualification. This is as shown in the Table 4.5.

Table 4.5: Academic Qualifications

	Frequency	Percent	Cumulative Percent
diploma	6	13.3	13.3
degree	35	77.8	91.1
masters	4	8.9	100.0
Total	45	100.0	

Source: Survey Data, 2016

4.7 Regression Results of TPCCL

Regression analysis has been carried to evaluate whether there is significant relationship between efficiency measures of working capital management and ROA of TPCCL. ACP, APP, ICP and CCC are included as independent variables or as predictor of ROA and CS, SG, and CR are taken as control variables. ROA is taken as dependent variable. The following aspects deal with the same.

4.7.1 The Impact of Cash Conversion Cycle (CCC) and ROA

Table 4.6: Model Summary of TPCCL

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.973[a]	.948	.738	2.14466	.948	4.518	4	1	.337

Source: Compiled information run on SPSS (Version 22)

Table 4.7: Regression Coefficients of TPCCL

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	4.511	5.070		.890	.537		
Cash conversion Cycle	.056	.056	.310	1.012	.496	.560	1.785
sales growth	2.217	1.911	.327	1.160	.453	.660	1.515
current Ratio	-.266	.366	-.403	-.727	.600	.170	5.869
company size	1.457	.774	1.050	1.882	.311	.168	5.936

Source: Compiled information run on SPSS (Version 22)

The following observation have been made from the analysis of data above

The overall regression model explain 94.8% of variation in ROA caused by CCC after controlling the effects of control variables, the variation is significant at 4% confidence level (0.337). The collinearity is below the required level. The relationship between CCC and ROA is positive 0.56 against expected; therefore the relationship is not significant. While the relationship between CS (1.457), SG (2.217) and ROA are positive but insignificant. Whereas relationship between CR (-0.266) was insignificant negative against expected.

4.7.2 The Impact of Inventory Holding Period (ICP) and ROA

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.987[a]	.973	.866	1.53185	.973	9.097	4	1	.243

Source: Compiled Information Run on SPSS (Version 22)

Table 4.9: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	21.665	11.027		1.965	.300		
	sales growth	3.563	1.126	.525	3.164	.195	.970	1.031
	current Ratio	-.492	.245	-.745	-2.008	.294	.194	5.142
	company size	1.887	.509	1.361	3.707	.168	.198	5.038
	Inventory Conversion Period	-.138	.080	-.291	-1.723	.335	.937	1.067

Source: Compiled Information Run on SPSS (Version 22)

The following observation have been made from the analysis of data above. The regression model explain 86.6% of variation in ROA caused by ICP after controlling the impact of control variables, the variation is significant at 4% confidence level (0.243). The relationship between ICP and ROA is negative -0.138 as expected; therefore the relationship is significant at 4% confidence level (0.335). While the relationship between CS (1.887), SG (3.56) and ROA are positive but insignificant. Whereas relationship between CR (-0.492) was insignificant negative against expected.

4.7.3 Accounts Collection Period

Table 4.10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	1.000[a]	1.000	1.000	.07092	1.000	4360.729	4	1	.011

a. Predictors: (Constant), Average Collection Period, company size, sales growth, current Ratio.

Table 4. 11: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	14.800	.307		48.257	.013		
sales growth	2.291	.057	.338	40.123	.016	.809	1.236
current Ratio	.616	.026	.933	23.358	.027	.036	27.802
company size	.085	.046	.062	1.870	.313	.053	18.942
Average Collection Period	-.288	.007	-.824	-43.016	.015	.156	6.407

A Dependent Variable: Return on Assets

The following observation have been made from the analysis of data above. The regression model explain 100% of variation in ROA caused by ACP after controlling the impact of control variables, the variation is significant at 4% confidence level (0.011). The relationship between ACP and ROA is negative -0.288 as expected; therefore the relationship is not significant at 4% confidence level (0.335) and while the relationship between CS (0.313) and ROA are positive but insignificant only in case of CR (0.027) and SG (0.016).

4.7.4 Accounts Payable Period

Table 4.12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.995[a]	.990	.949	.94522	.990	24.299	4	1	.151

a. Predictors: (Constant), Average Payable Period, company size, sales growth, current Ratio

Table 4.13: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	12.955	3.738		3.466	.179		
sales growth	2.234	.776	.329	2.877	.213	.777	1.287
current Ratio	-.129	.175	-.196	-.741	.594	.146	6.869
company size	1.233	.358	.889	3.443	.180	.153	6.547
Average Payable Period	-.051	.016	-.409	-3.070	.200	.573	1.744

a Dependent Variable: Return on Assets

The regression model explain 99% of variation in ROA caused by APP after controlling the impact of control variables, the variation is significant at 4% confidence level (0.151). The relationship between APP and ROA is negative -0.051 against expectation; therefore the relationship is not significant. While the relationship between CS (1.233) and SG (2.234) ROA are positive but insignificant only in case of CR (-0.129).

4.8 Summary of Findings and Discussions

4.8.1 Introduction

This study investigates the impact of working capital management on profitability at TPCCL. The purpose is to present discussion of the findings obtained from this chapter four. Will start to discuss correlation results then regression results will follow.

4.8.2 Discussion of Correlation

An attempt was made to analyze the correlation between management of working capital components of TPCCL and their ROA respectively. The followings deal with the discussion on the same.

4.8.3 Correlation between Working Capital Efficiency Ratios of TPCCL and its ROA

The correlation between ROA and ACP was negative as expected but insignificant. This implied that as firm collects their collectable quickly automatically ROA will increase but when they takes longer to collect accounts receivables this will make ROA to decrease. This could be due to the fact that by collecting early firms will have cash on hand which can invest into short term investments like marketable securities, open fixed deposit accounts hence gains from those investment will contribute into ROA increase.

Similarly collecting early will reduce the risks of bad debts. This finding is consistent with Soekhoe (2012), Pansiana et al. (2014), Madishetti and Kibona (2013). The study inferred negative correlation between ROA and APP against expectation but this relationship in not significant. This un-expected outcome is due to inefficiency in

working capital management so particular company should take measure to proper management of APP to bring into positive relationship. This agreed to Falope and Aljilore (2009).

The observations from the study indicating negative correlation between GOP and ICP as expected which implied that when firms took few days to convent inventory into revenue will earn huge ROA but when it take longer obvious ROA will decrease. This result is agreed with Panigrahi (2013). Found negative correlation between ROA and Inventory conversion period.

On the other hand the evidence revealed that there is a positive correlation between ROA and CCC against expectation but this relationship in not significant. This un-expected outcomes could be due inefficiency in working capital management, therefore management should take enough effort to manage their CCC to bring into negative position.

Therefore based on the above correlation results, the company result revealed unpredicted correlations, so that an attempt should be made to reverse the situations. Not only that but also to control working capital in a manner that the correlation between ROA and working capital components should be significant as expected.

4.9 Discussion of Multiple Regressions

4.9.1 The Impact of Independent Variables of Working Capital on ROA of TPCCL

An attempt was made to assess the impact of working capital management on ROA, below are the discussions for TPCCL results. The relationship between ACP and ROA

is negative as expected and the relationship is insignificant, this infer that by having few days to collect accounts receivables ROA will increase but also by having a policy of delaying to collect receivables obvious ROA will be decreasing. This finding is consistent with Madishetti and Kibona (2013), Napompech (2012) and Pansiana et al. (2014). Both of them found negative relationship between ACP and ROA.

The relationship between APP and ROA is negative against expected and the relationship is not significant. It implied that by having a policy of paying suppliers early it will reduce the ROA but delaying in payments will cause ROA to increase. Similar result obtained by Kimeli (2012), Pansiana et al. (2014), and Rehman and Anjum (2013).

The relationship between ACP and ROA is negative as expected and the relationship is significant. The company should continue improving the supervision of ACP to get correct relationship between ROA and ACP. It also concluded that the relationship between ROA and CCC is positive against expected but the relationship in not significant. The implied that companies having less CCC earn less ROA while those having high CCC earn higher ROA.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

This chapter presents conclusion drawn from the overall overviews of the research and the recommendation of the findings.

5.2 Conclusions

Working capital plays a vital role in the company's operations and requires the efficient management. The management of working capital concerns the management of cash, inventories, Accounts Receivable and Accounts Payable. It is required for a company to keep an eye on its working capital properly and maintain its balance at the suitable level. Lack of working capital may lead to lack of liquidity as well as failure of production and sales, on the excess balance of working capital could be seen as loss of investment opportunities. Other way to achieve the objective of having efficient working capital is to manage short term Assets and Liabilities such as implement policies on inventory, credit and collection as well as supplier's payment term. However, the study has found that there are also other factors affect the management of working capital. Previous studies on working capital management have pointed out that financial performance measure, such as ROA, ROI, ROE and ROS, profitability, the number of accounts receivable, inventory conversion period and accounts payable days, affect working capital management of a company.

From the analysis infers that, ROA depends upon well-organized working capital management. The correlation of the company revealed that ROA is negatively

correlated to ACP as expected while negatively correlated to APP against expected also the study while negative correlation between ICP and ROA however the correlation between ROA and CCC was positive against expected. It's emphasized to manage efficiently APP and CCC to avoid unforeseen results.

Furthermore the regression findings unveil that the relationship between ROA and ACP was negative as expected while the relationship between ROA and APP against expected also the relationship between ICP and ROA was negative as expected while unexpected positive relationship between CCC and ROA occurred. Therefore to concluded that care and competent is required on management on APP and CCC.

5.3 Recommendations

The study has shown clear understanding of working capital components and they influence firm performance. This promotes the efforts of managers that lead to improve their firms' performance which can be done through appropriate management of working capital components. Therefore, the recommendations of the research were premised on the study findings as follows:

Regression results of the company showed that there is negative relationship between ICP and ROA as expected. Hence the company put much effort so as to improve better its performance in inventory management. The regression results of impact of APP on ROA is negative against expected but not significant. Hence this company has to manage it payable in such way that it should result into a significant level.

The regression for CCC on GOP was positive against expectation but insignificant for the company, thus particular company should take measure on cash and cash equivalent management to attain their performance into positive and significant level.

The sales growth of both the companies is positive with ROA but not significant. Hence the management should invest their effort in this area.

Success or failure of any organization depends on its workforce. In order for an organization to be successful, needs of both organization and employees should be satisfied. The employees who work harder to make their organization achieve its goals and objectives should be rewarded effectively. The TPCC staff needs extra training and time to keep for the monitoring of working capital management to the organization to reach their goals and objective of organization as well as increasing the value for company.

5.4 Recommendations for Further Research

This research study was so limited for the data collected from the sampled population and the data collected was based only for one organization. Hence there is need for other researchers to consider larger and different sample sets so to take into consideration for the different environment in which some of them operate. This will allow for making comparison between the results of the different studies.

Due to the limited time for collected data, it was not possible to collect comprehensive data needed to measure the impact of working capital management on profitability at Tanzania Portland Cement Company Limited. In this regard, there is need for other researchers to widen the study by including collecting secondary data covering a wider period of time, for instance 6 years. Compared to the three years used for this study, different results may be arrived at by use of a wider time period.

This study was limited by the reluctant responses to the questionnaire and also reluctance to availing the financial statements. In this regard, there is need for researchers to explore the use of different data collection techniques which will enhance the response rate. With an enhance response rate, the researchers may come up with different findings.

The model used in this study has various limitations. This includes the use of ROA as an alternative for financial performance (profitability of the organization). Further studies should be carried out on the impact of working capital management (WCM) on profitability of cements industry in Tanzania and an expansion of the model used, where it can apply more than one alternative for financial performance or profitability. In addition, a different model can be applied to analyze this relationship. The researchers may come up with different results.

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APPENDIX

Appendix I: Questionnaire

You are kindly requested to answer all questions in this research study questionnaire. The information that you will provide shall be treated with a high level of confidentiality and strictly used for the purpose of this research study. This study aims at finding out the Impact of working capital management on profitability. Kindly do not write your name anywhere on this questionnaire. Part A: General Information Please respond to the following questions below by ticking [√] on the appropriate option.

Part A

1. Please indicate your Gender.

   Male [ ] Female [ ]

2. Position:

   Supervisor [ ] Marketer [ ] Sales representative [ ] Owner [ ] Others (Specify)

3. Indicate your age bracket as shown below:

   18-20 [ ] 21-25 [ ] 26-30 [ ] 31-35 [ ] 36-40 [ ] 41 and above [ ]

4. Your academic qualification:

   Certificate [ ] Diploma [ ] Degree [ ] Masters [ ] Doctorate [ ] No formal Education [ ] others

5. How many years has the company been in business?

a) 0-3

b) 4-6

c) 7-10

d) Over 10

6. Does the Organization have any written policy statement regarding working capital

management strategy?

a) Yes

b) No

7. If yes, kindly indicate the areas it covers

a) Cash

b) Inventory

c) Debtors

d) Creditors

e) All of the above

8. What accounting system does the firm use?

a) Computerized

b) Manual

c) A combination of computerized and manual

9. If the firm uses computerized software for its accounts, which of the following does it use?

a) QuickBooks

b) Sage

c) Pastel

d) Other

10. Rank each single area of working capital management in terms of the number of problems faced. Use the following scale:

1=Least problems

2=Few Problems

3=Many problems

4=Most problems

Area of Working Capital	Ranking
Cash	
Inventory	
Debtors	
Creditors	

11. Of the above areas of working capital, which area would the firm need training? Kindly tick all that are appropriate.

a) Cash management

b) Inventory management

c) Debtors management

d) Creditors management

Part B: Main Issues (Key: **SA- Strongly agree, A – Agree, UD- Undecided, D- Disagree, SD- Strongly disagree**) where applicable.

12. To what extent do you agree with the following aspects of cash conversion cycle as affecting profitability of the organization?

	SA	A	UD	D	SD
The length of cash conversion cycle has a material impact on the profitability.					
Shorter cash conversion cycles are better than longer ones.					
Management of cash conversion cycles is the work of the lower level staff					
Should set its standard level of cash conversion cycle.					
Others					

13. To what extent do you agree with the following aspects of inventory holding period as affecting profitability of the organization?

	SA	A	UD	D	SD
The length of inventory holding period has a material impact on the profitability.					
Firms should set Economic Order Quantity (EOQ) to ensure adequate stocks are maintained.					
Firms should ensure funds are set aside for reorder					
A longer inventory holding period has a negative effect					

on profitability.					
Others					

14. To what extent do you agree with the following aspects of accounts receivable period as affecting profitability?

	SA	A	UD	D	SD
The length of accounts receivable period has a material impact on the profitability of the organization.					
Shorter accounts receivable period are better to the firm indicating that customers came to buy on credit many times thus they paid within a short period.					
Firms should have a proper debt management policy and ensure that bad debts are provided for					
Debtors collection period should be reduced by granting short crediting period					
Others					

15. To what extent do you agree with the following aspects of accounts payable period as affecting profitability of the Organization?

	SA	A	UD	D	SD
The length of accounts payable period has a material impact on the profitability					
Creditors should be paid as late as possible in order to maximize returns.					
Firms should negotiate for a longer credit period with the suppliers.					
Proper creditors' management policies can help a firm to enjoy benefits of credit discounts.					
Others					

16. To what extent do you rate the effect of approaches of working capital on profitability of the Organization?

	SA	A	UD	D	SD
The use of either matching, aggressive or moderate approaches in managing working capital affects profitability of firms					
The conservative approach is appropriate for of long-					

term projects.					
Firms relying more on short term financing (aggressive financing approach) increases their financial risk and possibility of bankruptcy					
Others					

Part C: Commentary

Kindly answer the following questions below by ticking [√] on the appropriate option and comment where applicable

17. Does your organization have cash conversion policy?

    Yes ( ) No ( )

    If Yes, comment on how it affects

    profitability……

    ……

18. Does your organization have Inventory policy?

    Yes ( ) No ( )

    If Yes, comment on how it affects

    profitability……

    …….

19. Does your organization have Accounts Receivable policy?

    Yes ( ) No ( )

    If Yes, comment on how it affects

    profitability……

    ……

20. Does your organization have Accounts Payable policy?

    Yes ( ) No ( )

    If Yes, comment on how it affects

    profitability……

    ……

21. Which working capital management approaches does your organization use?

Aggressive policy ( ) Matching policy ( ) Conservative policy ( ) none ( )

If Yes, please comment on how the policy has impacted on profitability

……

……