St. Mary's University

School of Graduate Studies

MBA Program

Effect of working capital management on firm profitability: Evidence from PP woven Sacks (Bags) manufacturing companies in Addis Ababa, Ethiopia

BY

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June 2020, Addis Ababa

Ethiopia.

The Effect of Working Capital Management on Firms Profitability: Evidence from PP Woven Bags Manufacturing Companies in Addis Ababa.

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A THESIS SUBMITTED TO St. Mary's UNIVERSITY SCHOOLOF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION (IN ACCOUNTING AND FINANCE).

June, 2020 Addis Ababa
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EFFECT OF WORKING CAPITAL MANAGMENT ON FIRM PROFITABILITY: EVIDENCE FROM PP WOVEN BAGS MANUFACTURING COMPANYIES IN ADDIS ABABA.

APPROVED BY BOARD OF EXAMINERS

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Declaration

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Dr.ZenegnawAbiyHailu ; All source of materials used for the thesis have been duly acknowledged, and I further confirm that the thesis has not been summited either part or in fill to any other higher learning institution for purpose of earning any Degree.

Name

Signature

St. Mary's university, Addis Ababa

June, 2020

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate studies for examination with my approval as a university advisor.

Advisor	Signature
St. Mary's University	June, 2020

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Acknowledgment

First and foremost, I would like to thank my Almighty GOD, who helps me in every aspect of my life.

Next, I wish to express my gratitude to Dr. ZenegnawAbiyHailu, my advisor for his continuous support and constructive comment for this study.

Finally, I am grateful to staff of ERCA, who help me data collection to complete this study, I deeply wish to pay highest tribute to my families for their love, support, encouragement and advise me.

List of Acronyms

ARD: Account Receivable Days

APD: Account Payable Days

CCC: Cash Conversion Cycle

IHP: Inventory Holding Period

DR: Debt Ratio

CLTAR: Current Liability Total Assets Ratio

CATAR: Current Assets Total Assets ratio

ROA: Return on Assets

WCM: Working Capital Management

ERCA: Ethiopian Revenue and Customs Authority

Abstract

The main purpose of this study is to test empirically the effect of working capital management onprofitability in the case of PP woven bags manufacturing companies in Addis Ababa. The study adopted the explanatory research designed, comprised with sixteen companies selected as the sample by using convenience and purposive sampling technique, and quantitative approach will be applied to meet the objective of the study and answer the research hypothesis under it. The study used secondary data obtained from audited financial statement of sixteen PP woven bags manufacturing companies in Addis Ababa, Ethiopia for the period of 2008 to 2017. To determine the effect of working capital, account receivable days, account payable, cash conversion cycle and inventory holding period are used as independent variables and return on assets (ROA) used as measure of profitability , moreover, debt ratio, current liabilities to total assets ratio and current assets to total assets ratio are used as control variables. Data was analyzed on quantitative basis using descriptive, correlation and regression analysis (Ordinary Least Squared),The data was analyzed by using E-View (version 8.0), The key finding from the study are; Firstly, there exist a significant positive relationship between account receivable period and firm profitability, it implied that decrease in number of days a firm receive payment from sales affects the profitability of the firm positively, secondly, there exist significant negative relationship between account payable period and profitability and insignificant negative relationship between inventory conversion period and profitability, Thirdly, there exist insignificant positive relation relationship between cash conversion cycle and profitability of the firm, Finally, there exist positive relationship between current liabilities to total assets ratio and a positive relationship between current assets to total assets ratio. In general the study recommended that PP woven bags manufacturing companies must try to keep reduce number of day's cash conversion.

Key words: working capital, profitability, PP woven bags com, Addis Ababa.

CHAPTERONE:

INTRODUCTION

This study is organized under different sections in which, back ground of the study, statement of the problem, objectives of the study, research hypothesis, significant of the study and scope of the study was presented.

1.1. Back ground of the study

Management of working capital refers to management of current assets and current liabilities. Firms may have an optimal level of working capital that maximized their value; prior evidence has determined the relationship between working capital and performance (MengeshaandWobeshet, 2014).

Working capital management is one of the most important and sensitive aspect of overall financial management that require careful consideration in all companies regardless of their type or nature (Deloof, 2003).

Working capital management is the parts of the financing consideration that a finance manager of a corporation needs to determine, beside capital structure and capital budgeting (Ross, Westerfield and Jordan, 2010).The goal of effect working capital management is to ensure that a company has adequate ready access to the fund necessary for day-to day operating expense, while at the same time making sure that the company assets are invested in the most productive way. Achieving this goal requires a balancing of concerns. Insufficient access to cash could ultimately lead to sever restructuring of a company by selling off assets, reorganization via bankruptcy proceeding, or final liquidation of the company. On the other hand, excessive investment in cash and liquid assets may not be the best use of company resources (Alicia, 2019)

Effect working capital management encompasses several aspect of short-term finance: maintain adequate level of cash, covert short term assets i.e. account receivable and inventory in to cash, and controlling outgoing payment to vendors, employees and others. To do this successfully, companies invest short-term funds in working capital portfolios of short-dated, highly liquidsecurities, or they maintain credit reserves in the form of bank of credit or access to financing by issuing commercial paper or other money market instrument.

Working capital management is an important corporate financial decision since it directly affects the profitability of the firm. Working capital management efficiently is vital especially for manufacturing firm , where the major parts of assets and liabilities are composed of current assets especially inventory, current liabilities and trade payable .(Arunkmar and ramanan,201).

Working capital management is particular important to the profitability growth of the business entity .This because without a proper management of working capital management, it is difficulty for the firm to run its operational smoothly. That is why Brigham and Houston (2003) conclude that about 60 percent a typical financial manager time is devoted to working capital management. Hence the crucial parts of managing working capital is maintaining the required liquidity in day to day operation to ensure firm smooth running and to meet its obligation

Working capital management plays a significant role in improved profitability of the firm. Firm can achieve optimal management of working capital by making the tradeoff between profitability and liquidity.

Working capital management is the ability to control effectively and efficiently the current asset and current liabilities in the manner that is provides the firm with maximum return on its asset and minimized payment for its liabilities (Raheman& Nasir.2007).

Working capital management efficiently is vital especially manufacturing firms, Where a major part of assets is composed of current asset (Horne&Wacchowitz, 2000).it directly affect affects the profitability and liquidity of the firms (Raheman&Nasir ,2007). The profitability liquidity tradeoff is important because if working capital management is not given due considerations then, the firm are likely to fail and face bankruptcy (Kargar&Bluementhal, 1994).

The function of obtaining efficient working capital management is to maintain current asset and current liabilities in respect to each other and to generate maximum returns. Workingcapital management (WCM) is an important corporate financial decision since it directly affects the profitability of the firm. Working capital management efficiently is vital especially for manufacturing company like PP Woven Sacks (Bags) ,where the major parts of assets and liabilities are composed of especially inventory and receivable ,and payable.

Efficient management of working capital plays an important role of overall corporate strategy in order to create shareholders value. Working capital is regarded as the result of the time lag between the expenditure for the purchase of raw material can have a significant impact on both the liquidity of the company (Shin etal, 1998). The main purpose of any firm is to maximize wealth, but maintaining liquidity of the firm also is an important objective. The problem is the increasing profit at the cost of liquidity can bring serious problem to the firm. Thus, strategy of firm must maintain a balance between these two objectives of the firm.

Working capital management efficiency is vital especially for manufacturing firm where a majority of composed of current assets (Horne etal, 2000). And able to maximizing firm profitability and shareholders value ,Furthermore , the benefit of having an efficient working capital management are the firm able to meet its short term obligation and adequate liquidity position in order to continue the operation of the firms(Eljelly,2004). Many researches had conducted various studies to examine on the relationship between effects of working capital management & firm profitability over the last years; however, the purpose of this study is to assess the impact of working capital management on profitability of PP Woven Sack (Bags) manufacturing companies in Addis Ababa.

Working capital management is a broad-based function; Effective execution requires managing and coordinating several tasks within the company, including managing short-term investments, granting credit to customers and collecting on credit, managing inventory and managing payable. Effective working capital management also requires reliable cash forecasts, as well as current and accurate information on transaction and bank balance, it also working capital management can improve a company earing and profitability through efficient use of its resources. Management of working capital includes inventory management as well as management of accounts receivables and account payable

The main objective of working capital management include maintaining the working capital operating cycle and ensuring its ordered operation, minimizing the cost of capital spent on the working capital, and maximizing the return on current assets investment and insuring that the company has enough cash to cover its expenses and debt, are minimizing the cost of money spent on working capital, and maximizing the return on assets investments (Jalia, 2019).

Working Capital management entail the process of balancing the needs of short term assets and short term liabilities .Aspect of working capital management include short-term loans. Merchandise purchase on credit, goods and service provided on credit and merchandise, goods and service paid for delivery. Managing working capital essentially entails managing the cash flow of a business on a daily, weekly and monthly basis in such a way that satisfies all debts while reserving enough capital to continue operations and the generation of profits.

Businesses face bankruptcy when insufficient capital resources prevent them from paying debts owed. Successful working capital management allows a business to pay all debts as they mature, or come due, while continuing profitable business operations. As the very least, successful working capital management allows a business to break even. Therefore,working capital management directly responsible for the avoidance of bankruptcy. Unsuccessful working capital management can lead directly to bankruptcy by preventing a business from paying off liabilities or by preventing the generation of new capital with which to pay future debts (Will Girsh, 2007). It is important for a business to manage good working capital by undertaking each component relating to working capital effectively and efficiently. It must be noted that the amount of working capital that a company carries can be used to protect it against possible insolvency; it can also affect its profitability as well. So , it is essential for a business management to maintain the balance between liquidity and profitability while managing working capital. Thus, a well-managed working capital is crucial for running a health and successful business (Fareed, 2015).

The management of a company primary working capital account of inventory, Account Receivable and Account payable is required to ensure sufficient cash to meet operating and debt requirements (Phyllis, 2015).

1.2 Statement of the problem

Working Capital management is important area of finance because without proper management of working capital, it is difficult for the organization to run its operation smoothly. Firm can achieve optimal capital management by making the tradeoff between profitability and liquidity, it is also working management decision is important factor as it determined the firm value maximizing and shareholders wealth.

Efficiency in working capital management is vital for especially production, firm whose assets are mostly composed of current assets Horne and Wachowitz,(1998) as it directly affect liquidity and profitability of any firm Raheman and Nasr,(2007) .According to Kargar and Blue (1994) bankruptcy may also be likely for firm that put inaccurate working capital management procedures into practice, even though their profitability is constantly positive. Hence, it must be avoided to recede from optimal working capital level by bringing the aim of profit maximization in the foreground, or just in direct contradiction, to focus only on liquidity and consequently pass over profitability.

Every firm is required to balance between profitability and liquidity .as inadequate amount of working capital impair a firm liquidity whereas excess working capital result the reduction of the profitability (Jalia, 2019).

Efficient working capital management helps maintain smooth operations and can also help to improve the company earnings and profitability. Management of working capital includes inventory management and management of account receivables and account payables.

There are numbers of studies with reference to Ethiopia on working capital management and firm's profitability, Ephrem (2018) in his study by taking 45 Grade one construction companies in Addis Ababa ,examined the effect of cash conversion cycle, inventory conversion period, average collection and payable outstanding on gross operating profit, the result shown that number of days inventory and the cash conversion cycle on profitability measured are statistically insignificant and cash conversion cycle and debt ratio in the research have a negative sign of coefficient and significant effect. On the other hand, Mifta (2016), Examined the impact of working capital management on profitability of manufacturing share companies in Ethiopia reference to large tax payers, using working capital components, account receivable period, Inventory holding period, account payable period and cash conversion cycle in relation to return on assets (ROA) and the result show that , there exist a significant negative relationship between average collection period and profitability and there also exist a negative relationship between inventory holding period with profitability, on the other hand, a positive relationship between account payable and profitability and there exist a negative relationship between cash conversion cycle and firms profitability.

Wubshet (2014), in his study examined the impact of working capital management on firm's performance of 11 metal manufacturing companies using performance measured in the terms of profitability ,return on assets(ROA) and return on investment . The working capital was determined by cash conversion cycle, account receivable period, inventory conversion period and account payable period are used as independent working capital variables. The result shown that there exists significant negative relationship between cash conversion cycle and profitability and also the result indicate that no significant relationship between cash conversion cycle, account receivable period, inventory holding period and account period with return on investment.

Aychelet (2018) Investigate the impact of working capital management on the performance of printing firms found in Addis Ababa from the period of 2011 to 2015, in his study, return on assets (ROA) used as a dependent variable, while, cash conversion cycle, account collection period, inventory conversion period, current ratio and firms size used as independent variables .The result shown that, inventory conversion period, account collection period and current ratio have significant negative relation with profitability but positive significant relationship between cash conversion cycle and profitability.

The findings of previous studies show that working capital management has significant relation with firms profitability and, it is recommended that firms minimized working capital management components in order to maximized profit.

PP Woven sacks (Bags) manufacturing industries imported all the required raw materials that help to produced different product to supply for their customers, so they are all depend on foreign currency to buy these raw materials from abroad, we are all aware of our country current foreign currency shortage, In addition to this the demand for their products are seasonal, which means the demand for the product is high in winter (Bega) season, by this time harvesting time for overall of the country required high demand of especially PP woven sacks (bags) ,whereas ,summer time (Kiremt) low demand time ,because of these reason the companies produced in summer time (Kiremt) and hold it up to six months in their warehouse. This creates the problem of working capital shortage and high inventory for these companies.

According to the knowledge of the researcher, there was no study has been conducted on these type of industries that depend on foreign currency for theirs raw materials supply and show the effect of working capital management on their profitability.

1.3 General Objective

The general objective of this study is to examine the relationship between working capital management and firm profitability on PP Woven Sacks (Bags) manufacturing companies in Addis Ababa and the surrounding area.

1.4. Specific objective

To achieve the general objective the following specific objective will be used;

- To examine the effect of number of days account receivable ARD) towards the profitability of PP woven sacks (bags) companies.
- To determine there is a significant effect of account payable period (APP) on profitability of PP woven Sacks (Bags) companies.
- To establish whether there is a significant effect of inventory conversion period (ICP) on profitability of PP woven bags companies in Addis Ababa.
- To examine if there is a significant effect of cash conversion cycle on profitability of PP woven bags companies.
- To determine the effect of working capital financing policy on firms profitability.

1.5 Research Hypotheses

The definition and hypothesis of each variable are discussed below:

Account receivable period

Account receivable days have been used as represent for cash collection policy and average time it take to collect payment from customers. It calculated by divided account receivable by total sales and then multiplies it by 365 days. According to the study of Arshad (2003), account receivable period has positively affect profitability.

For the purpose of this study we will be going with the alternative hypothesis below:

H1: There is significant and Positive relationship between average collection periods (ARD) and profitability of the firms.

This hypothesis state that the less time the firm gives to its customers to pay their bills, the more profit it can make and vice versa.

Account payable period

Account payable period, measure the number of the days a firm to take to pay its suppliers. It is an interest free form of financing and many companies use them to take last day possible before payment is due. It calculated by divided account payable by cost of goods of sold and then, multiply by 365 days.According to the studies of Arshad (2003), Lazaridis and Tryfanidis (2006), account payable period has negatively affected profitability.

For the purpose of this study will be going with the alternative hypothesis below:

H2: There is significant negatively relationship between average payment period (APD) and firm profitability of the firms.

This hypothesis states that the less time the firm has to pay its suppliers the less profit it can generate and vice versa. The longer the time the firm can wait to settle its duties to suppliers the more profits it's entitled to generate.

Cash conversion cycle

Cash conversion cycle measure the net interval between actual cash expenditure on a firm purchase of productive resources and the ultimate recovery of cash receipt from product sales. It calculated by adding together account receivable and inventory holding andsubtracts account payable from it.According to pervious study, of Blinder and Maccini (1999), cash conversion cycle has positively affected profitability.

For the purpose of this study, we will be going with the alternative hypothesis below:

H3: There is significant negative relationship between cash conversion cycle (CCC) and profitability of the firms.

This hypothesis state that the less time the cash conversion cycle takes the more profit the firms can generate and the longer cash conversion cycles the lower the profitability of the firm will be.

Inventory Holding Period

Inventory holding period measures the number of days inventory is held by the company before it sold. The less number of days in inventory indicate that inventory does not remain in warehouse and the vice versa. It calculated by divided inventory by cost of goods sold and then multiply by 365 days.According to the studies of:Padachi (2006), Deloof (2003), Falope and Ajilare (2009), inventory conversion period has negatively affected profitability.

H4: There is significant negative relationship between inventory conversion period (IHP) and profitability of the firms.

This hypothesis affirms that the more time the product stay in inventories the less profitable the firm will be.

Current Liabilities to Total Assets Ratio

It Included the study to discovered the working capital financing policy, it is two types, aggressive financing policy, in this financing policy greater portion of current liabilities is used than long term debt, on the other hand, conservative financing policy it is more long term debt are used than current liabilities. It calculated by divided current liabilities to total assets. According to previous studies of Tufail (2008), Afza and Nazir (2007), current liabilities to current assets ratio have negatively affected conservative working capital policy.

H5: There is a significant positive relationship between current liabilities to total assets ratio and profitability of the firms.

1.6Significant of study

The purpose of this study is to determine the effect of working capital management on profitability of PP woven sacks (Bags) companies in Addis Ababa. The finding of the study will help the industry managements and finance officers of PP woven sacks (bags) companies in designing in their strategies related to working capital management because majority of raw materials (almost all) imported from abroad to produced their product and supply to the market

,so help them how to manage this scarce foreign currency to maximized profit for their firm , Moreover, a general framework for policy makers, professionals and managers was formulated a guide which reappraise current business practice and provides basic guideline for new policies in business environment. Finally, the study will have important resource document for academicians and future researchers who may wish to investigate the performance of companies related to working capital management and profitability.

1.7The Scope and limitation of the study

This study will mainly focus on the effect of working capital management on profitability of the PP woven sacks (Bags) manufacturing companies found in Addis Ababa, doing this 16 PP woven sacks (Bags) manufacturing companies were selected from in and around Addis Ababa and the analysis is done for ten years. The location is chosenbecausethere are a lot of firms are found in and around Addis Ababa engaging this type of activity (production of PP woven Bags). The main limitation for the study was to get the data with the proper condition from where the data is collected.

CHAPTER TWO:

LITERATURE REVIEW

2.1 Concept of Working capital management

Working capital management is referring to any action aimed at managing companies working capital levels and thus does not refer to any specific managing model or framework. In contrast to long term financial decisions, working capital deals with the issues of short term financing. For example, deciding the level of credit a company gives their client as well as how much credit they should demand from their suppliers Aravindan, (2013).

Working capital management refers to the managing of short term finances. The basic idea is that assets should be allocated so that their optimal potential is realized and thus minimized waste Allen. (2013). Working capital is often discussed in relation to profitability .As one of the goal of working capital management is to increase profitability it should make it attractive even over time, in good economic climate Mathur, (2010).

Working capital management is essentially an accounting strategy with a focus on the maintenance of a sufficient balance between company current assets and liabilities, An effective working capital management system help businesses not only cover their financial obligations but also boost their earrings .Managing working capital means managing inventories, cash, account payable and account receivable. An efficient working capital management system often uses key performance ratios, such as

The working capital ratio, the inventory turnover ratio and the collection ratio, to help identify areas that require focus in order to maintain liquidity and profitability Hawley, (2019).

Working capital management is become has one of the most important issues in the organizations where the financial executives are striving to identify the determinants of basic working capital and the appropriate level of working capital management. In the words of, managing the working capital tactfully result into material savings and insures optimum financial return on the minimum amount of capital employed Banos, (2014).

Management considers profitability is an important input when planning the operations of the business, whereas creditors and shareholders look at profitability to determine the return on their investment in the business and assess the risks of their investment, which may be affect ed by the industry structure of competitive environment Gitman,(2007).

Management has some discretion over the level of investment in working capital and the financing of this investment, at any particular level of output, However, this decision involves a risk return tradeoff , Generally the higher the risk the higher the return will be demanded by management and shareholders in order to finance any investment in working capital Cooper ,(2001). For example, a decrease in current assets level increases the risk of stock-out if the demand in sale increase unexpectedly. If the level of current assets decreases then profitability improves as the asses turnover increase. Alternatively, high level of working capital decrease risks and thus return because higher financing costs are associated with maintain high level of current assets using eternal source of fund.

Working capital management is very important for a firm to maintain its performance. As its effects the profitability of firm working capital management explicitly impacts both the profitability and level of desired liquidity of a business. Working capital means the difference between the current assets and current liabilities, current assets include the term cash, prepaid expense, marketable securities, short term loan, outstanding expenses etc., if current assets are more than the current liabilities then, working capital management is most important part of firm short- term financial matters. Firms all sizes have to strictly manage its working capital regarding their profitability Alipour, (2011).

Profitability is regarded as goal for all companies and a measurement to judge the efficiency of administrating their operational, financial and investment process. It also refers to the relationship between the earn incomes and the investment that leads to this incomes, this can be measured through the relationship between the profit and sales or through the relationship between profit and investment that caused them Deken, (2009).

Many companies attempt to improve profitability and cash flow by reducing investment in current assets through methods such as effect credit underwriting and collection of receivables, and just in time inventory management. In addition, companies try to finance a large portion of their current assets through current liabilities, such as accounts payable and accruals, in an attempt to reduce working capital. Because of the impact of current assets and current liabilities on liquidity and profitability, analysis of current assets and current liabilities is very important in both credit analysis and profitability analysis, Subramanya&Wild ,(2009).

Sustainable working capital provides a company with the flexibility to expand and enhance its operations, improve liquidity, maintain or increase profitability and respond to challenging economic condition. Yet all too often money can become tied up in account receivable entry on balance sheet, something that firms looking to optimize working capital have often overlooked as part of their financial strategy.

The importance of unlocking funds in the account receivable entry is exacerbated by the economic climate and the continued reluctance of banks to lend .Indeed, innovative firms are looking internally to raise funds by taking a customer-centric approach to improve account receivable and therefore, optimize working capital.

Historically, firms have looked to optimize three key aspect of working capital, namely cost cutting, inventory management and by obtaining best possible return on cash reserve while prolonging the account payable process. These functions are already considered strategic , yet account receivable often the largest entry in balance sheet, has traditionally been more of an administrative concern. However, as the fourth key factor of working capital, account receivable an untapped opportunity for innovation in optimizing working capital. A rethinking is required to ensure that the credit, collections and complaints functions unlock the true value tied up in account receivable and therefore, become a strategy concern .if done successfully , this will not keep cash flowing through a business, but will free up fund for investment in future growth (David, 2011).

A company cash conversion cycle consists of the operational journey a transaction take to generate money for the business. It starts with the review and background check of a potential customer, the evaluation of client financial standing and creditworthiness, and the credit approval for a specific transaction or a series deals. After the company ship merchandise to the patron, accounting manager record the underlying receivable, also known as a customer receivable or account receivable. The corporate cash conversion cycle also goes through the receipt of customer fund as well the collection recovery efforts. When it comes to customer default, near insolvency or bankruptcy. While they are distinct concept, working capital and a cash conversion cycle interact in a company operating machine Marquis, (2007).

A manufacturing unit needs to hold the stock of raw material, work in process, finished goods for a length of time in work place before dispatching the final products to the customers. IN simple terms, operating cycle mean the length of time required to convert Non- cash current assets like raw material, work in process, finished goods and receivables.in to cash. At each stage of operating cycle i.e. Stock of raw material, work in process, finished goods a manufacturing unit needs to hold the stock for a length of time in the workplace before dispatching the final products to customers. The holding period of receivable is dependent on the period of credit extended to the customers. The tendency of some manufacturing units holding the current assets (stocks and receivable) beyond the requirement of holding period has the financial implication, as more amount of interest payable on current liabilities for the time taken in converting the current assets in to cash Naik, (2007).

2.1.1 Importance of working capital

Working capital is a vital part of business firm and can provide various advantage for business firm among; First, higher return on capital, firms with lower working capital will post a higher return on capital, shareholders will benefit from a higher return for every dollar invested in business, secondly, Improved credit profile and solvency, the ability to meet short-term obligation is requisite to long term solvency. And it is often a good indication of counterparty credit risk. Adequate working capital management will allow a firm to pay on time its short term obligations. Third, increase business value, firms with more efficient working capital management will generate more free cash flows which will result in higher business valuation and enterprise value, finally, uninterrupted production, A firm paying its suppliers on time will benefit from a regular flow of raw materials, ensuring that the production remains uninterrupted and client receive their goods on time (e Finance M.com).

Working capital is a signal of a company operating liquidity, having enough working capital means that the company should be able to pay for all of its short-term expense and liabilities, the term operating liquidity can be defined as the ability of a company or individual to quickly convert assets in to cash for the purpose of paying operating expenses. Working capital is important for large companies' ability to borrow, increase their share price, pay expense and short-term debts. Working capital is important for small companies that cannot access financial markets to borrow, and for startup that need to survive until they break even. Working capital cannot guarantee whether a company is financially sound, but it give some insight, Large companies pay attention to working capital for the same reason as small ones do; Working capital is a measure of liquidity, and thus is a measure of their credit-worthiness. Companies whose want to borrow by issuing bonds or purchasing paper will find it more expensive if they do not have enough working capital, if they are a public company, their stock price may fall if the market doesn't believe they have adequate working capital Rehana, (2017).

Working capital is an important component of corporate financial management. It show us the relationship between current asset and current liability The ultimate objective of any firm is profit and wealth maximization but at the same time preserve the liquidity of the firm is an important objective too, hence, proper balance between the short term asserts and current liabilities help us to minimize the working capital requirement of any firm and maximized its revenue. Surya Jain, (2017)

Working capital is an economic metrics that signifies that the operational liquidity of commerce, organization, or other entity.it is most significant constituent of finance matters in companies in working capital management, which has a direct impact on productivity and liquidity of company. Working capital sanctioned the company ability to continue its activity without jeopardizing liquidity. Positive working capital is essential to ensure that a firm is able to continue its operations and has adequate funds to satisfy both maturing short term debt and forthcoming operational expenses. A company can be endowed with assets and success but short on liquidity if its assets cannot be change in cash. In Financial literature, working capital described as that part of the firm capital, which is essential for financing short term or current assets such as cash marketable securities, debtors and inventories. Fund invested in current assets keep revolving fast and are constantly converted in to cash and this cash flow out again in exchange for the other current assets Mhattachny, (2009).

Working capital is also known as turning or circulating capital or short term capital Soenen, (2007). Working capital is the part of current assets exceeds current liabilities, which is defined as net working capital William, (2011).

A firm needs to be efficient in managing working capital in order to increase its cash flow and eventually decrease its dependency on external financing. The working capital determines the liquidity of a firm which is important for day-to-day operation in order to meet demand and increase its profitability. A firm effectively manages its working capital in order to maintain its risk and profitability and indeed help maximize shareholder value. Also inefficient management

of working capital may increase risk indebtedness even if the company is maintain profitability. The probability of a firm indicates the financial gain that a firm gives and the ability of the firm to earn profits. There are many variables that indicate the profitability of a firm like Return on Asset (ROA) it is a profitability ratio that provides how much profit a company is generate from its assets , in other word return on investment (ROA) measures how efficient a company management is in generating earning from their economic resource or assets on their balance sheet (Surya jain) , Return on investment (ROI), is the performance measure used to evaluate the efficiency of an investment or compare the efficiency of a number of different investment (Chen,2019) and Return on Equity (ROE), is a ratio that provides investors with insight in to how efficiently a company is handling the money that shareholders have contributed to it , in others words , it measure the profitability of a corporation in in relation to stockholders equity. The higher the ROE, the more efficient a company management is at generating income and growth its equity financing Ryan. (2019).

A Company working capital is the money that is used to finance its operations. The more working capital in a company has Available, the more stable it is in the short term .Working capital is necessary to pay current expense, and other operating costs of a business. Obviously, running low on working capital puts entire company at risk because failure to pay expense can be catastrophic Varley, (2018).

Working capital typical means the firm holdings of current or short term, such as cash, receivables, inventory, and marketable securities. Working capital refer to that part of firm capital which is required for financing short term or current assets such as cash , marketable securities, debtors, and inventory ,in other word working capital is the amount of funds necessary to cover the cost of operating the enterpriseGuthman, (2006).

(Brown, 1995), suggested that industrial companies generally require a large amount of working capital although it various from business of lack of uniformity characterizing each field of enterprise. However, the underlying determinants of the amounts of fixed capital are required for operation; working assets may be expected to occupy a smaller niche in the assets structure. Similar reasons, a rapid turnover of capital will inevitably mean a large proportion of current assets.in the case of industries with fixed investment, one of the primary uses of working capital is resized from operating plant structure.

In manufacturing enterprises, a large share of working capital management is more likely to become charged in form by conversion in to finished products, but even here, the potentially of recovery is not delayed as in the case of public utilities and manufacturing companies. The need for working capital varies with changes in the volume of business Brown, (1995).

Working capital is a prevalent metric for the efficiency, liquidity and overall health of a company. It is a reflection of the result of various company activities, including revenue collection, debt management, inventory management and payments to suppliers .This is because it includes inventory, account payable and receivable, cash portion of debt due within the period of a year and other short-term accounts. The needs for working capital vary from industry to industry, and they can even vary among similar companies. This is due to several factors, including differences in collection and payment policies, the timing of asset purchases, and the likelihood of a company writing off some of its past due account receivable, and in some instances, capital raising efforts a company is undertaking Hawwly, (2019).

When a company does not have enough working capital to cover its obligations, financial insolvency can result and lead to legal troubles, liquidation of assets and potential bankruptcy. Thus, it is vital to all businesses to have adequate management of working capital.

2.1.2 Factors determining working capital requirement

The requirement of working capital depends on the nature of business. The nature of business is usually of two types; manufacturing business and trading business , in the case of manufacturing business it take a lot of time in converting raw material in to finished goods, there for , capital remains invested for a long time in raw material, semi-finished goods and the stocking of finished goods , consequently , more working capital is required. On the contrary, in case of trading business the goods are sold immediately after purchasing or sometime the sale is affected even before the purchase itself. There for, very little capital is required. Moreover, in the case of service business, the working capital is almost nil since there is nothing in stock Ksha, (2018).

The management of working capital is completely different from industry to industry. A simple comparison of the service industry and manufacturing industry can clarify the point. In the service industry, there is no inventory and therefore, one big component of working capital is already avoided. So, the nature of the industry is a factor in determining the working capital requirement (e finance M.com).

Operating cycle, leverage and ROA had a significant impact on working capital requirement Nazir and Afza, (2008).

Working capital is directly influenced by size of business. Greater the size larger will be the requirement of working capital. In the cases even small concern may need more working capital due to high overhead charges, inefficient use of available resource and other economic disadvantage of small size Menon, (2017).

Depending upon the kind of items manufactured, a company is able to offset the effect off-seasonal fluctuations upon working capital by adjusting its production schedules. The choice rests between varying output in order to adjust inventories to seasonal requirement and maintaining a steady rate of production and permitting stocks of inventories to build up during off-season periods. It will be obvious that a level production plan would involve a higher investment in working capital chand, (2017).

2.1.3 Working capital policy

Working capital policy depends on the risk and return tradeoff inherent in alternative policies High risk, high return working capital investment and financing strategies are referred to as aggressive; lower risk and return strategies are called moderate or matching; lower risk and return is called conservative. Aggressive asset management policy results in capital being minimized in current assets against long term investment. Expectation of this type of firm has higher profitability but greater the risk. As an alternative, firm policy is conservative high proportion of capital in liquidity asset, but at the forgo profitability. To measure of working capital policy current asset to total asset is used. Lower ratio, working capital policy is aggressive. On the other hand, the ratio of current liability to total asset is used, by this higher the ratio indicate the policy is conservative Zhao &Wijiewardana, (2012).

Based on the attitude of the finance manager towards risk, profitability and liquidity, the working capital policy can be divided in to following three types:

2.1.3.1. Restricted policy

In restricted policy, the estimation of current assets for achieving targeted revenue is done very aggressively without considering for any contingencies and provisions for any unforeseen even. After deciding, these policies are forcefully implanted in the organization without tolerating any deviations.

Adopting this policy would result in advantage of the lower working capital requirement due to the lower level of current assets. This saves the interest cost to the company and which in turn produces higher profitability i.e. higher return on investment (ROI). On the other hand, there is the advantage in the form of high risk due to very aggressive policy. That is why it also called as aggressive working capital policy (e finance M.com)

2.1.3.2 Relaxed policy

Relaxed policy is just the opposite of restricted policy. In this policy, the estimation of current assets for achieving the targeted revenue is prepared after careful consideration of uncertain events such as seasonal fluctuations, a sudden change in the level of activities or sales etc. After the reasonable estimates also, a cushion to avoid any unforeseen circumstance is left to avoid the maximum possible risk.

The companies having relaxed working capital policies assume an advantage of almost no risk or low risk. This policy guarantees the entrepreneur of the smooth functioning of the operating cycle. We know that earnings are more important than higher earnings; on the other hand, there is a disadvantage of lower return on investment because higher investments in the current assets attract higher cost which in turn reduces profitability. Because of its conservative nature, this policy is called as conservative working capital policy (e finance M.com)

2.1.3.3 Moderate policy

Moderate policy is a balance between the two policies i.e. restricted and relaxed. It assumes characteristics of the both the policies. To strike a balance, moderate policy assumes risk which is lower than restricted and higher than conservative. In profitability front also, it lies between the two.

The biggest benefit of this policy is that it has reasonable assurance of smooth operation of working capital cycle with moderate profitability.

Working capital policies can be further framed for each component of net working capital i.e. cash, account receivable, inventory and account payable. Cash policies can be to maintain an appropriate level of cash. When the level is high, it should be invested in liquid investment for short term and vice versa. Account receivable policy may state about payment terms, credit period, credit limit, etc. Inventory policy may speak of minimizing the level of inventory till the point it poses any risk to the satisfaction of customer demand. Account payable polies include polies of payment terms; quality terms return policies (e finance M.com).

2.2 Working capital Components

2.2.1Cash Management

The purpose of cash management is to determine and achieve the appropriate level and structure of cash and marketable security consistent with the nature of business operation and objective Brigham,et,(1999). Cash and marketable securities should be manage so as to achieve a balance between the risk of insufficient liquid or rear liquid resource, and the cost of holding excessively high levels of these resources.in order to achieve and maintain this balance, which is subject to continual dynamic process both the motive and appropriate level of cash needs to be established and monitored Brigham, (1999).

If business improves its forecast and arrange its affaires so that cash inflow are synchronized with cash out flows, and transaction balance can be reduced the level of working capital can also be reduced. If working capital is financed from debt , the reduction in the magnitude of working capital will result will lower interest payments which in turn will give rise to improved profit, greater efficient and productivity and enhanced return on assets and return on equity Brigham,(1999).

In corporate cash management, also often known as treasury management, business managers, corporate treasures, and chief financial officers are typically the main individuals responsible for overall cash management strategies, cash related responsibilities, and ability analysis. Many companies may outsource part or all of their cash management responsibilities to different service providers, regardless, there are several key metrics that are monitored and analyzed by cash management executives on a daily, monthly, quarterly and annual basis Kenton, (2019).

There are several approaches to assist with the management of cash these are cash budget ratio approach, cash budget and cash forecasting.

The cash budgeting ratio sets a performance target in term od the ratio of cash to the number of days' worth of payables or the ratio of cash as a percentage of sales. These target ratios are compared to the industry average.

The cash budget is disbursement approach focuses on management of cash flow and balances, this approach is based on the assumption that both the magnitude and the time of cash receipts and disbursement are known with a high degree of accuracy .Gitman.(1997).

Cash forecasting is an estimate and projection of the business cash needed on daily, weekly, monthly, and annually basis by considering factors such as sales, fixed assets, inventory requirements, time when payment are made, and collection received.

2.2.2 Account receivable management

Account receivable management is the process of insuring that customers pay their dues on time.it helps the businesses to prevent themselves from running out of working capital at any point of time. It also prevents overdue payment or non-payment of the pending amount of the customers. It builds the business financial and liquidation position .A good receivable management contributes to the profitability by reducing the risk of any bad debts. Management is not only about reminding the customers and collecting the money on time. It also involves identifying the reason for such delays and finding a solution to those issues Brose , (2019).

Account receivable management result from credit sales. The purpose of credit sale is to stimulate sales in order to expand share and if possible enhance production capacity efficiency. If the benefit exceed the cost of credit sales, the business performance should be enhanced, and should be reflected in key performance criteria such as efficiency, productivity, and return on equity, Gitman, (1997).

The management of accounts receivable is largely determined by business credit policy. The investment in accounts receivable, debtors, as with investment decisions must earn a rate of return in excess of the required rate of return. Major risk that arise from granting credit include bad debts and debtors delinquency, because they reduce the return from the investment in account receivable, and if inadequately monitored can impact severely on the business financial performance.

Once credit has been granted and credit sales have made, account receivable has to be collected. The goal collection management is to insure that payment are received according to schedule, otherwise a greater investment in account receivable will be needed. if receipts from account receivable can be speed up without prejudicing sales or customer goodwill.

2.2.3 Account payable management

Account payable is the amount that are due to suppliers of goods and service to the business, for example .a furniture chain buys its raw material from various supplies on credit .account payable arise from trade credit, which is important portion of working capital.it work in favor of both the buyer and supplies the buyer is able to get short-term financing from the seller itself. The seller, by offering credit for purchase, is able to push its product and build relationship with buyer. Rosemary (2007).

Just like inventory and account receivable. It is important to a firm to manage its account payable effectively .if the account payable are paid too early, then it is unnecessarily using its cash, which could have been utilized elsewhere (opportunity cost).However, if it delay too much in making payments beyond payment due date, it may spoil its relation with the suppliers, which will lead to stricter credit term in the future.

In order to ensure that the company manage its accounts payables effectively, it needs to have a formal guideline or policy in place .such a policy will address several factors that will help them streamline the processes and bring transparency to the whole system. Some of the factors are listed below:

- Whether payable are handled from a centralized or decentralized

- Details of the supply chain such as the number, size and location of vendors. For example a company may strict buying from vendor that are below a certain size, or it may want to by only from local vendors.
- Details of trade credit, and the alternative cost of borrowing.
- Details of inventory management system as they affect how fast payables can be processed.

An important tool used by companies to measure the effectiveness of payables management is the average days of payables outstanding. A short payable period indicates that the company is paying faster.it could because the company is taking advantage of discount available for paying early .A long payables period indicates that either the company is dominant player and can afford to pay late and take advantage of the extra credit period, or it indicates poor payables management or liquidity problem within the company (Rosemary Peavler).

2.2.4 Inventory management

Inventory management is the branch of business management that covers the planning and control of inventory Denny Hong,(2006).

Inventory management is a key component of cost of goods sold and thus is key driver of profit, total assets and tax liability. Many financial ratios, such as inventory turnover, incorporate inventory values to measure certain aspects of the health of a business. For these reason, because changes in commodity and other materials prices affect the value of a company inventory, inventory management is important. Also a key parts of managing supply chain, buy too much stuff and a company can end up paying more for warehousing, insurance, shipping and others service related to obtaining and maintaining inventory .All these affect the bottom line. Finding the best way to buy, to store and move inventory can make the difference between profit and losses for many companies Walt, (2017).

Inventory management is a complex process, particularly for large organization, but the basis are essentially the same regardless of the organization size or type.in inventory management , goods are delivered in to receiving area of a warehouse in the form of raw materials or components and are put stock area or shelves (Margaret Rouse).

Inventory management is a key component of cost of goods sold and thus is a key driver of profit, total assets, and tax liability. Many financial ratios, such as inventory turnover, incorporate inventory values to measure certain aspects of the health of a business. For these reasons, and because changes in commodity and other materials prices affect the value of a company inventory, inventory management is important Walt, (2017).

Compare to large organization with more physical space, in smaller companies, the goods may go directly to the stock area instead of receiving location, and if the business is a wholesale distributer, the goods may be finished products rather raw material or components. The goods are then pulled from the stock area and moved to production facilities where they are made in to finished goods.

Inventory management uses a variety of data to keep track of the goods as they move through the process, including lot numbers, serial numbers, cost of goods, quality of goods and the date when they move the process.(Margaret Rouse).

2.3. Effect of working capital management components on profitability

2.3.1 Effect of cash management on profitability

Managing the cash cycle is one of the key elements of corporate cash management. Cash cycle management involves speeding up cash receipt and slowing down cash disbursements. The cash cycle of a firm is defined as the amount of time that elapses from point when the firms make an outlay to purchase raw material to the point when cash is collected from the sale of finished goods produced using that raw material, the term cash turnover, in contrast refer to the number of time each year the firm is actually turned over, and is indicative of cash velocity (Lawrence J.).Akinyoni (2014), in his study effect of cash management on firm profitability of Nigerian manufacturing firms ,he found , a positive and significant relationship between cash conversion cycle (CCC) and Return on Equity (ROE).

2.3.2 Effect of Account receivablemanagement on profitability

Account receivable management is the process of insuring that customers pay their dues on time.it helps the businesses to prevent themselves from running out of working capital at any point of time. It also prevents overdue payment or non-payment of the pending amount of the customers. It builds the business financial and liquidation position .A good receivable management contributes to the profitability by reducing the risk of any bad debts. Management is not only about reminding the customers and collecting the money on time. It also involves identifying the reason for such delays and finding a solution to those issues Brose, (2019).

Divya and Simnun on their study, effect of receivable management on profitability, a case study commercial vehicles industry in India, they found the result of a significant positive relationship between debtors turnover ratio and profitability of the firm, this implies that receivable management should be a key focus point for improving profitability of the firms they added.

2.3.4 Effect of Account payablemanagement on profitability

Account payable, located in company's balance sheet re, the company owns its suppliers or the vendors from which is buys its inventory and other supplies. Just like any other asset or liability, account payable, the company's unpaid bills can have a big impact on profitability. They can either improve company profitability, or they can cause it to rally take a hit.The two primary ways that account payable affect company profitability are the company' relationship with its suppliers or vendors and company cash flow, Rosemary (2019).

Agbo (2018), in his study to determine the impact of average payment period on profitability of quoted insurance companies in Nigerian, the result found that average payments period has a significant negative impact on profitability.

2.3.5 Effect of Inventory management on profitability

Inventory management is a key component of cost of goods sold and thus is key driver of profit, total assets and tax liability. Many financial ratios, such as inventory turnover, incorporate inventory values to measure certain aspects of the health of a business. For these reason, because changes in commodity and other materials prices affect the value of a company inventory, inventory management is important. Also a key parts of managing supply chain, buy too much stuff and a company can end up paying more for warehousing, insurance, shipping and others service related to obtaining and maintaining inventory .All these affect the bottom line. Finding the best way to buy, to store and move inventory can make the difference between profit and losses for many companies (Walt,2017).

KwadwoBoateng, in his study, the impact of efficient inventory management on profitability evidence from selected manufacturing firms in Ghana, The study revealed that the main variable raw materials inventory management designed to capture the effect of efficient management of raw material inventory by a company on its profitability is significantly strong and positive impact on the profitability of the manufacturing firms Ghana.

2.4. Theory of Liquidity

2.4.1 Keynesian theory of liquidity

Keynesian economics represented a new way of looking at spending, output, and inflation. Previously, classical economic thinking held that cyclical swings in employment and economic output would be modest and self-adjusting. According to this classical theory, if aggregate demand in the economy fell, the resulting weakness in production and jobs would precipitate a decline in prices and wages. A lower level of inflation and wages would induce employers to make capital investments and employ more people, stimulating employment and restoring economic growth.

According to Keynes, demand for liquidity is determined by three motives, first, the transactions motive; people prefer to have liquidity to assure basic transactions, for their income is not constantly available, the amount of liquidity demanded is determined by the level of income, the higher the income, the more money demand for carrying out increase spending. Second, the precautionary motive, according to this, people prefer to have liquidity in the case of social unexpected problems that need unusual costs. The amount of money demanded for this purpose increase as income increase, finally, speculative motive; people retain liquidity to speculate that bond prices will fall, when the interest rate decreases people demand more money to hold until the interest rate increases, which would drive down the price of an existing bond to keep its yield in line with interest rate, Thus, the lower the interest rate, the more money demanded and the vice versa (JimChappelow).

2.4.2 Preferred habitat theory

A biased expectations theory that believes the term structure reflects the expectation of the future path of interest rate as well as risk premium. The theory rejects the assertion that risk premium must rise uniformly with maturity, but instead profits that to the extent that the demand for and supply of funds do not match for a given maturity range, some participants will shift to maturities showing the opposite imbalances, as long as they are compensated by an appropriate risk premium whose magnitude will reflect the extent of aversion to either price (Economics concet.com)

2.4.3 Classical theory

In the classical view, there exists a long run proportional relationship between the money stock and the price level. Change in the money supply will ultimately produce a proportionate change in the general level of commodity prices. This proportional relationship is based on the assumption that (a) the ratio of real balances to the volume of transaction is relatively constant and, (b) there is no link between the interest rate and the demand for money, Knowledgiat (2017).

The term of liquidity is basically a technique which is used by an organization to cover its assets (current) in to cash whenever a firm or organization needed to meet its financial obligations, it convert its current assets in to cash form to pay the due liabilities at maturate date .As and when the firm needed to pay its short term obligations to its debtors and creditors, it must have an ability to satisfy its creditors for this purpose, and this ability is as liquidity of a firm Van Horne &Wachowicz,(2008).

Anyanwu,(1993),defined liquidity as the ability of the firm to convert its assets in to cash within the short time and without the loss of value.

The liquidity position of the company is critical to its survival .The liquidity of a firm should neither be excessive nor be very low since too much of liquidity will result in accumulation of current assets which do not yield income to the firm. The concept what constitutes the liquidity of a firm has been viewed differently by different people with reference to a business firm. Liquidity is measured by the availability of cash whether direct or indirect and involving conversion of some assets in to each to meet ordinary or extraordinary demand upon it. Liquidity refers to cash and cash availability, and it is from current operations and previous accumulation that cash is available to take care of the claims of both the short-term and long-term supplies of capital. In each of these contexts, liquidity refers to the ability of a firm to provide cash to meet the claims, the supplier of capital have on the firm R.B.Westerfield, (1993).

Liquidity as a function of current assets and current liabilities is an important factor in determining working capital policies and indicates firm capability of generating cash in case of need .Current, acid-test and cash ratios as traditional measures of liquidity are incompetent and static balance sheet based measures that cannot provide detailed and accurate information about working capital management effectiveness Finnerty, (1993).

Liquidity management is crucial because even though the ultimate goal of a company is to gain profit and maximize the wealth of shareholder, which are indicated by profitability, if the company could not even fulfill its short-term obligation and survive, generating profit and maximizing its shareholders wealth are out of question. Liquidity management becomes even more important in time of crisis Alvinirawan&Taufik, (2016).

Liquidity administration is an idea that is accepting consideration everywhere throughout the world, particularly with the current money related circumstance and the condition of world economy. A portion of the striking corporate objectives incorporates the need to augment benefit, keep up an abnormal state of liquidity to ensure security, accomplish the largest amount of proprietor's total asset combined with the fulfillment of other corporate targets. The significance of liquidity administrator as it influences corporate benefit in today business cannot be overemphasized. The urgent part in overseeing working capital has required the upkeep of its liquidity in everyday operation to guarantee its smooth running and meets its commitment. Liquidity assumes a huge part in the effective working of a business firmNahum, (2007).

According to investopedia (2016) liquidity, management takes one of two forms based on the definition of liquidity; one type of liquidity refers to the ability to trade an asset, such as stock or bond, at its current price. The other definition of liquidity applies to large organizations, such as financial institutions. Banks are often evaluated on their liquidity, or their ability to meet cash and collateral obligations without incurring substantial losses. In either case, liquidity management describes the effort of investors or managers to reduce liquidity risk exposure.

2.5 Empirical literature review

2.5.1 Empirical evidence from other countries.

Various studies have carried out to show the relationship of working capital management and firm profitability in varies countries. The results are varies , but majority of studies concluded a negative relationship between working capital management and firm profitability depend on the variables they used to investigated .by this section and the followed part assess these studies and identify the literature gap.

Jacob (2019) in his study of effect of working capital management on profitability listed manufacturing firms in Ghana .He used secondary data collected from seven (7) manufacturing firm on the Ghana stock exchange for a period of ten year (2005-2014).He took profitability as dependent variable that measure in the term of gross operating profit . And Account receivable period ,Account payable period, Inventory conversion period and cash conversion cycle are independent variables .More ever, current ratio used as liquidity indicator and firm size as measured by logarithm of sale are used as control variable. The result revealed that account receivable period (ARP) and inventory conversion period (ICP) days had statically significant positive effect on profitability .on the other hand cash conversion cycle (CCC) , current ratio (CR) , and firm size had a significant positive impact on the profitability.

Assen, Faisal &Muhammed (2011), the research they carried out the relationship between profitability and capital management by using 60 textile companies in Karachi (Pakistan),from the period 2001-2006 ,they found there is statistically negative significant between profitability and Return on asset (ROA),and the cash conversion cycle. Moreover can create profit for their companies by handling the cash conversion cycle and keeping number of day’s accounts receivables, number of accounts payable properly.

Ponsian, (2014) in his study aim the statistical significant between company working capital management and profitability. He took sample of three (3) manufacturing companies listed on the Dares Salaam stock exchange is used for the period of ten year (2002-2010) with the total of 30 observations. The key finding of this study are Firstly, there is exist a positive relation relationship between cash conversion cycle and profitability of the firm This means that as the cash conversion cycle increase it will lead to an increase in the profitability of the firm, and secondly, there is a negative relationship between liquidity and profitability showing that as liquidity decreases, the profitability increase ., Thirdly, there exist a highly significant negative relationship between average collection period and profitability , this indicate that decrease the numbers of days a firm receives payment from sales affect the profitability of the firm positively. And the last , there exist a highly significant positive relationship between average payment period and profitability.

MohsinSirag, (2019) by his study of working capital management on the performance of the non –financial firms in Pakistan. Panel data of 280 non-financial firm enlisted in Pakistan stock exchange have been analysis from 2000-2016 the result suggested that working capital management has a significant impact on firm firms financial performance in the term of profitability, as well as growth . As far as component wise result is concerned, inventory management does influence the firm growth and payable management significantly.

Jason Kasazi (2017) examine in his study working capital management on the financial performance of listed manufacturing firms on the Johannesburg security exchange. a panel data methodology was used with different regression estimators to analysis this relationship based on an balanced panel of 69 manufacturing firm listed during the period 2007-2016.The finding revealed that the average collection period and average payment period are negative and statically significant for profitability. Implying that firms which efficiently managed their account receivable and those that pay their creditors on time perform better than those that do not. Additionally , a positive statically significant relationship between the number of days in inventory and profitability was supported suggested that firms which stock-up and maintain their inventory levels suffer less from stock out and avoid challenges of securing financing when needed. Thisincreases their operational efficiency and ensures profitability in the long run.

Makori&Jagongo (2013), from Kenya listed manufacturing and construction firms analyzes the effect of working capital management on firm profitability for the period 2003 to 2012, and the study finds a negative relationship between profitability and number of days accounts receivable and cash conversion cycle, but a positive relationship between profitability and number of days of inventory and number of days payable. Moreover, the financial leverage, sales growth, current ratio and firm size also have significant effect on the firm profitability. Based on this finding the researchers concluded that the management of a firm can create value for their shareholders by reducing the number of day's accounts receivable. And also the researchers pointed that firms take long to pay their creditors in as far they do not strain their relationship with these creditors.

Kasozi (2017), on his study listed manufacturing firms on the Johannesburg securities exchange, examine the trends in working capital management and its impact on the financial performance he revealed the average collection period and the average payment period are negative and statistically significant for profitability, in other words firms which efficiently manage their account receivable and those that pay their creditors on time perform better than those that do not. Additionally, a positive statistically significant relationship between the number of days in inventory and profitability was supported that firm which stock-up and maintain their inventory levels suffer less from stock out and avoid challenges of securing financing when needed. This increases their operational efficiency and ensures profitability in the long run.

Kiare (2012), analyze the effect of working capital management on the profitability of manufacturing firms on the Nairobi securities exchange, he gathered data from financial report of seven manufacturing companies from the year 2009-2013 and by using multiple regression and correlation analysis, he established that gross operating profit was positively correlated with average collection period and average collection payment period but negatively correlated with cash conversion cycle. The relationship between inventory turnover in days and gross operating profit was insignificant. And he finally concluded and recommended that, profitability of manufacturing firms depends upon effective working capital management. Therefore, managers focus on reducing cash conversion cycles, collect receivables as soon as possible

2.5.2 Empirical literature review evidence from Ethiopia

Epherem (2018) on his study was to evaluated the impact of working capital management and firm profitability in the case of grade one construction companies.by investigate secondary data from audited financial statements of 45 (forty five) grade construction companies registered and work in Ethiopia. The data was analysis using state software .Estimation equation by both correlation analysis and cross sectional data regression. The result revealed that company size in the study have positive coefficient and statistically significant effect on profitability, cash conversion cycle, debt ratio in the research have negative sign of coefficient and significantly effect. In contrast, the number of days inventory and the cash conversion cycle (CCC) on profitability measured are statically insignificant.

Mifta (2016), in his study of impact of working capital management on profitability on manufacturing companies .secondary data used from their financial statement of the companies sample of 16 used the period of seven year from 2008-2014 .Analysis data by using descriptive and regression method. The key finding from the study are; Firstly, there exist a significant negative relationship between average collection period and profitability indicating that an increase in the number of days a firm receives payment from sales affect the profitability of the firm negatively; secondly, there is exist a negative relationship between inventory holding period with profitability and positive relationship between account payable period and profitability. But both inventory holding period and account payable period was found to be insignificant in affecting profitability of the firms. Thirdly, there exist a negative relationship between cash conversion cycle and firm profitability.

Abel (2019), this study examines the effect of working capital management on profitability of manufacturing companies in Dire Dawa city .examine the effect of number of days account receivable on profitability, number of days inventory on profitability and number of days account payable on profitability .The result of the study show that there is significantly negative relationship between number of days account receivable, number of days inventory holding and companies profitability, Secondly, the study revealed that there is significant relation between number of days account receivable and profitability.

Wubshet (2014), this study examined the impact of working capital management on firm performance that measured in the term of profitability by using return on asset and return on investment capital dependent financial performance variables. The working capital was determined by the cash conversion period, account receivable period, inventory conversion period and account payable period are used as independent working capital variable. The result indicates that longer account receivable and inventory holding period are associated with lower profitability. The result also show that there exist significant negative relationship between cash conversion cycle, account receivable period, inventory conversion period and account payable period with return on investment capital has been observed. On the other hand, finding show that a highly significant negative relationship between account receivable period, inventory conversion period, and account payable period with return on asset.

Aychelet (2018) Investigate the impact of working capital management on the performance of printing firms found in Addis Ababa from the period of 2011 to 2015, in his study, return on assets (ROA) used as a dependent variable, while, cash conversion cycle, account collection period, inventory conversion period, current ratio and firms size used as independent variables .The result shown that, inventory conversion period, account collection period and current ratio have significant negative relation with profitability but positive significant relationship between cash conversion cycle and profitability.

Arega,Tadele and Tadesse (2016), in their study explores the impact of working capital management on the profitability of food complex manufacturing firms operating in and around Addis Ababa. Efficiency of working capital has measured by inventory turnover period, Account receivable period, Account payable period, cash conversion cycle, current ratio and quick assets ratio; and Return on assets measure of profitability. This study has been collected 10 food complex manufacturing firms from the period from 2009-2013, the result reveal that return on assets found to be significant and negatively related to average days inventory, average days payable, and cash conversion cycle , on the other hand, current ration and quick assets ratio have insignificant and positive relation with return on assets.

Therefore this study different from other studies mention above are it is conducted the companies depend on imported all required raw material to produced their final product. It assuming working capital is a very serious case for these companies.This study is conducted to fill knowledge gap on effect of working capital management on profitability of PP woven sacks (bags) companies in Addis Ababa.

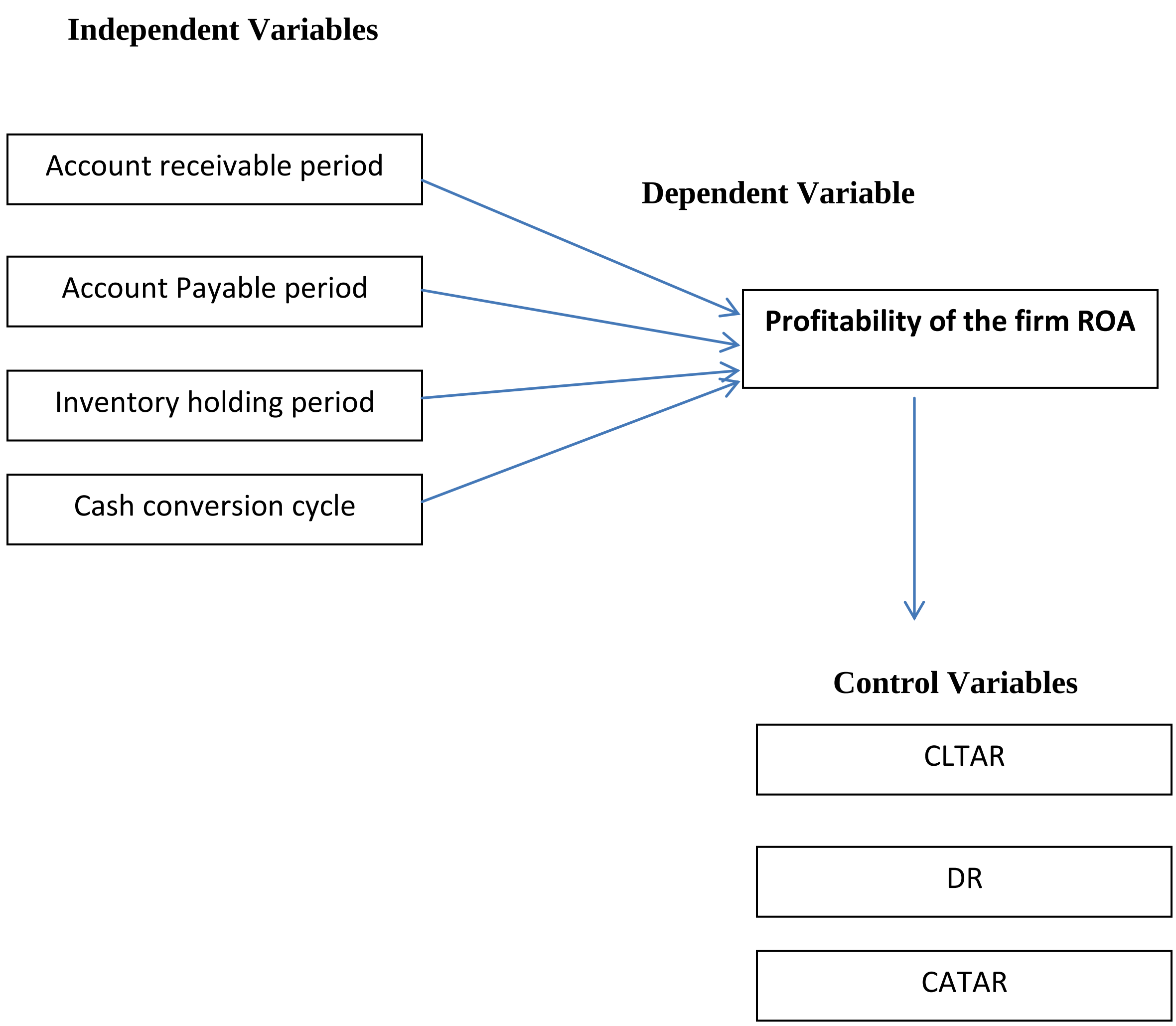
2.6 Summary and literature gap

This chapter started with an overview of working capital component like cash management, this is the determinant factor to achieve the appropriate level and structure of cash approach like cash budgeting ratio, cash forecasting and so on, also the other component account receivable management largely determined by business credit policy which minimized the major risk like bad debt and debtors delinquency. Account payable management to manage its account effectively unless it may be spoil the relationship with supplies.

It clear from the empirical literature review from other countries and the Ethiopia case it showed there is no common result of working capital management on firm profitability, PossianNtk (2014), Jason Kasazi (2017) ,from other country experienced and MiftaAmed (2016) , wubeshetMengistu (2014), and Abel Mengistu (2019) from the Ethiopia case concluded there is a negative relationship between working capital management and firm profitability. On the other hand EphremAssefa (2018), from Ethiopia case and Jacob Ameah from abroad concluded there is a positive relation between working capital and firm profitability. This may be due to the absent of important relevant variables that measure working capital and profitability, Therefore , this study included the major important variables and provides useful support for better understanding of the impact of working capital management on profitability of PP woven companies in Addis Ababa.

2.7 Conceptual Frame Work

The following figure present conceptual frame work of the relationship between working capital management measures and profitability of firms.



Source: research design.

CHAPTER THREE:

RESEARCH METHOD

Introduction

This chapter present and discusses method of data collection and analysis. And present how the researcher designed the research hypotheses and the researcher approach adopted by the study. This provided two parts the first part, is layout the research hypotheses and the second part is the variables, method of analysis and data utilized.

3.1 Research Design

The study adopted the explanatory research analysis, these research design are useful in experiment and quasi- experimental research design .most of the major inferential statistics comes from statistical model known as general linear model, this include t-test, analysis of variance ,analysis of covariance and regression .William (2007) .therefor ,this study concerned on the effect of working capital components on profitability, these are account receivable period, account payable period, inventory holding cycle, debt ratio, current liabilities to total assets ratio and current assets to total assets ratio on the profitability of the firm (ROA) of PP woven bags manufacturing companies in Addis Ababa was analysis. This research design enables the researcher to identify the relationship existed between the dependent variable and independent variables.

3.2 Research Approach

The population of the study will compromised 31 PP woven manufacturing companies all over the country among them 16 companies selected as the sample by using convenience and purposive sampling techniques have been used, because Addis Ababa region is found to be convenient to obtain the required data with the limited time and fund and selecting only PP woven bags manufacturing companies found in Addis Ababa.

The data sample was collected from Ethiopia revenue and custom authority large tax payers' branch office from the year 2008-2017.

In this study quantitative method approach will be applied to meet the objective of the study and answer the research hypotheses under it. Quantitative analysis is employed for several reasons including measurement, performance evaluation or valuation of financial instrument, and theresearcher used correlation and regression analysis to measure the degree of association between different variables under consideration, and to estimate the causal relationship between dependent and independent variables respectively.

3.3 Population and Sampling

Target population for a survey is the entire set of unit for which the survey data are to be used to make inferences .the target population of this study are PP woven manufacturing companies founded in Addis Ababa. The population of this study included all PP woven bags manufacturing companies all over the country which 31 in number.

3.4 source of Data

The research study employed the use of secondary source of data. The required data will gather from copies of audited financial statement. I.e. income statement and balance sheet statement for the period of five years has been used. The data obtained from the financial statement that was submitted to the Ethiopian revenue and custom authority large tax payers branch office.

3.5 Data Analysis Method

Statistical analysis will be carried out with some method and also E-View software has been used to analysis financial data. Descriptive statistics used to describe the basic feature of the data in the study. It provide simple summary about the sample and measurement .together with simple graphics analysis they form the basic virtually every quantitative analysis of data (William 2007).mean ,standard deviation ,maximum and minimum value of the required variable has been computed, then correlation analysis between dependent and independents variables are made, the researcher also used Least Square Method for analysis

3.6 Model Specification

This study use assets on return (AOR) as its dependent variable and Account Receivable days, Account payable days (APD), cash conversion cycle (CCC), inventory conversion period (ICP) on explanatory variables.

The general form of the model is:

ROAit=β0+β1ARDit+β2APDit+β3CCCit+β4ICPit+β5CLTAit+β6DRit+β7FSit+β8 CATAit+Uit

Where:

ROA: Return on assets of firm i at time t.

β0: The intercept of equation

ARD: Accounts Receivable Days

APD: Account payable days

CCC: Cash conversion cycle

IHP: Inventory conversion period

CLTAR: Current Liabilities Total Assets

DR: Debt ratio

CATAR: Current Assets Total Assets

Uit: The error term

3.7 Variables Definition

3.7.1 Dependent Variable

To measure firm performance (profitability) ROA (return on assets) was selected as dependent variable. Return on assets is a profitability ration that provides how much profit a company is able to generate from its assets. It measure how efficient company management is generating earning from their economic resource or assets on their balance sheet (Claire Boyte-white).

The formula for ROT is

ROA = **<u>EBIT</u>**

Total assets

3.7.2 Independent variables

The independent variables in this research and account receivable days, inventory holding period, account payable days, and cash conversion cycle are used to measure working capital investment policy.

3.7.2.1 Account receivable Period

Account receivable days have been used as represent for cash collection policy and average time it takes to collect payment from customers. From the literature state that days sales in receivables measure the effectives of the firm policy and indicate the level of investment in receivable needed to maintain the firm sales level.

Account receivable period = (Account Receivable) x 365-Days

Sales

$$\text{Account receivable period} = \frac{\text{Account Receivable}}{\text{Sales}} \times 365\text{-Days}$$

3.7.2.2 Account payable period

Account payable period (APP) measure the number of the days a firm takes to pay its suppliers. Account Payable period is an interest free form of financing and many companies use them to the last day possible before payment is due. Thus, this ratio represents an important source of financing for operating activities

$$\text{Account Payable Period (APP)} = \frac{\text{Account Payable}}{\text{Cost of Goods Sold}} \times 365 \text{ Days}$$

3.7.2.3 Cash Conversion Cycle

Cash conversion cycle (CCC) measures the net interval between actual cash expenditures on a firm purchase of productive resources and the ultimate recovery of cash receipt from product sales.

Cash Conversion cycles (CCC) = Account Receivable Period + Inventory Holding Period (IHP) – Account Payable Period (APP).

3.7.2.4 Inventory Holding Period

Inventory holding period measures the number of days inventory is held by the company before it sold

The less number of days sales in inventory indicates that inventory does not remain in warehouses but rather turn over rapidly from the time of acquisition of sales .

This ratio measure as follow as:

$$\text{Inventory Holding Period (IHP)} = \frac{\text{Inventory}}{\text{Cost of Goods Sold}} \times 365\text{-Days}$$

3.7.3 Control variables

Control variables play an active role in quantitative study. These variables are special type of independent variables that is measured in the study .In this study the researcher uses **debt ratio**, it reveals whether or not it has loan and if so how its credit financing compares to its assets, with higher debt ratio indicating higher degree of debt financing and also it is used to described the financial health of the companies. **Current liabilities to total assets ratio** included the study to discovered the working capital financing policy, it is two types, aggressive financing policy , in this financing policy greater portion of current liabilities is used than long term debt, on the other hand, conservative financing policy in this financing policy more long term debt are used than current liabilities. The other control variable included this study, **current assets tototal assets ratio**, it is used to find out the investment policy of working capital, this investment policy of WC are two types, aggressiveness investment policy of working capital that less investment is made in form of current assets as compared to fixed assets and the second type is conservative investment policy of WC more investment is placed in the form of current assets as compared to fixed assets.

Table 3.1 Variables chosen for the study

TYPE OF VARIABLE	NAME OF VARIABLE	HOW TO MEASURE
Dependent Variable	Return on Assets (ROA)	Sales-Total Operating Expenses Total Assets-Financial Assets
Independent Variable	Number of Days Inventory (IV)	Inventories x365-days Cost of goods sold
	Cash conversion cycle (CCC)	Number of days inventory + number Of days Accounts receivable – number of days Account payable
	Number of days Accounts Receivable (ARD)	Receivables x 365-days Net Sales
	Number of days Accounts payable (APD)	Trade payable x 365-days Cost of Goods sold
Control Variables	Debt Ratio	Total Liabilities Total Assets
	Current Liability to Total Assets ratio	Current Liabilities Total Assets
	Current Asset to Total Assets Ratio	Total Debts Total Assets

CHAPTER FOUR:

Data Analysis and Interpretation

Introduction

This chapter presents the result and analysis of the finding of various indicators for performance of PP woven bags manufacturing companies in Addis Ababa based on the effect of working capital management on firms profitability. The research has employed nine variables for the analysis purpose, eight independent and control variables and dependent profitability measurement variables, the study selected return on assets (ROA) as measure of firms profitability, on the other hand, cash conversion cycle (CCC), number of days account receivable (ARD), number of days account payable (APD), number of days inventory (IHP) was the measure of working capital for the study, The result obtained under different method are jointly analyzed in the subsequent chapters to address each research hypothesis.

4.1Descriptive statistics

In this section the result from descriptive statistics are discussed. This analysis shows the average and standard deviation of the different variables of interest in study.

Table: 4.1 present descriptive statistics for 16 PP woven manufacturing firms in Addis Ababa for theperiod of ten years from 2008 2017.

	ROA	ARD	APD	CCC	IHP	CLTAR	DR	CATAR
Mean	0.507742	571.2529	175.1324	532.3386	730.7259	9.534621	0.733658	489.2054
Median	0.524697	262.5334	52.74705	235.7814	314.7157	8.001614	0.470343	187.1689
Maximum	0.887602	382.6205	174.2247	1435.875	563.4764	72.24348	2.672768	6.75E+08
Minimum	0.029031	4.517912	1.295795	1.773489	1.828577	-9.453427	-1.297694	6.811294
Std. Dev.	0.160396	762.1705	282.8163	126.0427	105.2708	10.91521	0.620369	539.39375
Skewness	-0.115364	2.385498	2.625208	8.723520	2.379842	3.370753	0.519499	12.28219
Kurtosis	2.874563	8.693439	10.72749	93.48172	8.328810	17.28945	3.740424	153.1181
Jarque-Bera	0.454050	363.2528	574.6000	55901.32	336.0845	1643.439	10.71599	152330.8
Probability	0.796901	0.000000	0.000000	0.000000	0.000000	0.000000	0.004710	0.000000
Sum	80.22319	90257.96	27670.92	84109.50	115454.7	1506.470	115.9179	7.73E+08
Sum Sq. Dev.	4.039132	91201908	12557652	2.49E+08	1.74E+08	18705.26	60.42263	4.57E+17
Observations	158	158	158	158	158	158	158	158

Source: E-view 8 data summary statistics result based on annual report of sample firms for the study period

As it is displayed in table 4.1 the mean value of the firms return on assets is 50 % of total assets, the higher the return on assets indicates that the firms are effective enough in generating profit from its available assets and the reverse is true for decrease in return on assets. The standard deviation is 16%; it is means that the value of profitability can deviate from mean to both sides by 16 percent. Its minimum value is 2 percent while the maximum value is 88 percent.

Moreover, the account receivable period, a measurement for collection policy, is average to 571.25 days for the sampled firms. This average of account receivable period shows that, firm in the sampled wait 571.25 days on average to collect cash from credit sales. The account receivable period can vary by 762.1 days to both side of the mean value. The minimum account receivable period is 4 , it indicate the firms it taken 4 days to collect cash from their credit sales and the maximum account receivable periods of 382 days show the firm it take to 382 days to collect their credit sales.

The mean value of account payable period is 175days; it means the firms under study wait 174.5 days in average to pay their credit purchase with standard deviation of 282.9 days for both side of mean. The minimum and maximum period range between 174 days and 1 day.

The mean value of inventory conversion days is 730 days, these mean firms in the sampled spent an average of 730 to convert their inventory to sale, in addition, the standard deviation show 105 days which means it deviate both side of the mean. And To the maximum inventory holding period of firms is 563 days, which means the firms spent maximum of 563 days to convert their inventory to sale and the minimum inventory days is 1.

The mean time for cash conversion is 52.4 days, which means average time taken by firms its converts its overall activity in to cash has 532 days with standard deviation of 126 both side of the mean. The minimum value of 1.7 days, the firms its convert its overall activity in to cash and the maximum value is 1355 days. Time cash collection from credit sales before making a single payment for credit purchases. It means the account receivable period or inventory holding period are reasonable very short .on the other hand the maximum time for cash conversion period is

143.58 days , which is a very long period of time and it show that a firms recorded a large inventory turnover or cash collection from credit.

In addition, to explanatory variables control variables included in this study, such as current liabilities total ratio, it measures the firm degree of aggressiveness in financing its working capital requirement. The higher the value of current liabilities to total assets ratio the more aggressiveness is the firm in financing its working capital requirements. The average current liabilities proportion in financing the total assets of sampled companies is 9.5 percent, this is the largest ratio of current liabilities to total assets ratio, it is show the more aggressiveness of the firm in financing their working capital requirements. The standard deviation is 100.9, the minimum vale 94.5 percent.

The other control variable measure of working capital performance is the proportion of current assets to the total assets ratio of the firms. It measure the firms degree of aggressiveness or conservativeness in working capital investment , when the current assets is low , then the risk would be high because of liquidity problem and also the average the return is high. In this study, the sampled firms have an average 48.92 percent of the total assets in current form. The minimum value is 6 percent and this value relatively high / moderate aggressive condition while, the maximum value of current assets total assets ratio 60 %, which represent relatively higher conservative condition in the sampled firms during the study.

4.2Correlation Analysis

After discussed descriptive statistics, it is important to check the correlation between different variables on which the analysis is built.

Table: 4.2 Pearson Correlation coefficients Matrix

	ROA	ARD	APD	CCC	IHP	CLTAR	DR	CATAR
ROA	**1 .0000**							
ARD	**0.113454**	**1.0000**						
APD	**-0.142867**	**0.179124**	**1.0000**					
CCC	**0.07470**	**0.126774**	**0.024067**	**1.0000**				
IHP	**-0.11104**	**0.156930**	**0.150259**	**-0.003774**	**1.000**			
CLTAR	**0.126140**	**-0.027677**	**-0.030754**	**-0.023048**	**0.167529**	**1.0000**		
DR	**-0.121420**	**0.102868**	**0.023304**	**-0.069310**	**0.056640**	**0.036674**	**1.0000**	
CATAR	**0.109991**	**-0.05389**	**0.010738**	**0.01213**	**0.03907**	**0.01269**	**0.16771**	**1.000**

Source: financial statement of sampled manufacturing firms and computation through e-view

Table 4.2 present the result of correlation analysis of profitability measure of return on assets with account receivable days, account payable days, cash conversion cycle, inventory holding days, and current liability to total assets ratio.

The result of correlation analysis in table 4.2 reveals that there exists positive relationship between account receivable periods and profitability measure of return on assets. The implication of this relationship may because of receivable in long period of time difficult for firms for working capital is scarcity that making them faces production of delaying.

The correlation analysis show that between account payable days and the return on assets show a negative relationship exist with the profitability measure of return on assets, this result implication , that the firms make instant payment for their credit purchase and got discount from the customers.

The correlation analysis show that between cash conversion cycle and the return on asserts show a positive relationship, agreement with research hypothesis and based on table 4.2 result , even if there is a positive correlation coefficient between cash conversion cycle and return on asset , there is no statistically significant relation between cash conversion cycle and return on asset , because, at the point of correlation coefficient cash conversion cycle and return on assets 0.074 , the p-value is 0.5, it means statistically insignificant at 10 percent.

On the other hand, the correlation analysis show the relationship between average inventory days and profitability measure is negative; this relationship may exist because of the case a sudden drop in in sale accompanied with a mismanagement of inventory will lead to tied up excess capital of the expense of profitable operation.

The correlation analysis also shows that a positive relationship between current liabilities to total asset ratio and profitability measure, it implied that there is a positive relationship between financing policy and firm profitability. The higher the current liabilities to total assets ratio, the higher is the degree of aggressiveness on working capital financing policy, which leads to the higher level of profitably

It also, the relationship between current asset to total asset ratio and return on asset is positive, this implied that there is a negative relationship between aggressiveness in working capital investment policy and firm'sprofitability, as current asset to total asset ratio increase, the degree of aggressiveness in working capital investment policy decrease and profitability of the firms increase.

4.3 Diagnostic Tests

Diagnostic test is conducted to examine whether the sample is consistent with there is no relationship among independent variables (Multicolleanarity), the model is correctly specified, the error term is normally distributed (Normality test), and the error term is constant across the number of observation. If all the assumptions are consistent with the sample, the result will be accurate and reliable.

The diagnostic tests carried out in the study are detailed below:

4.3.1 Normality Test

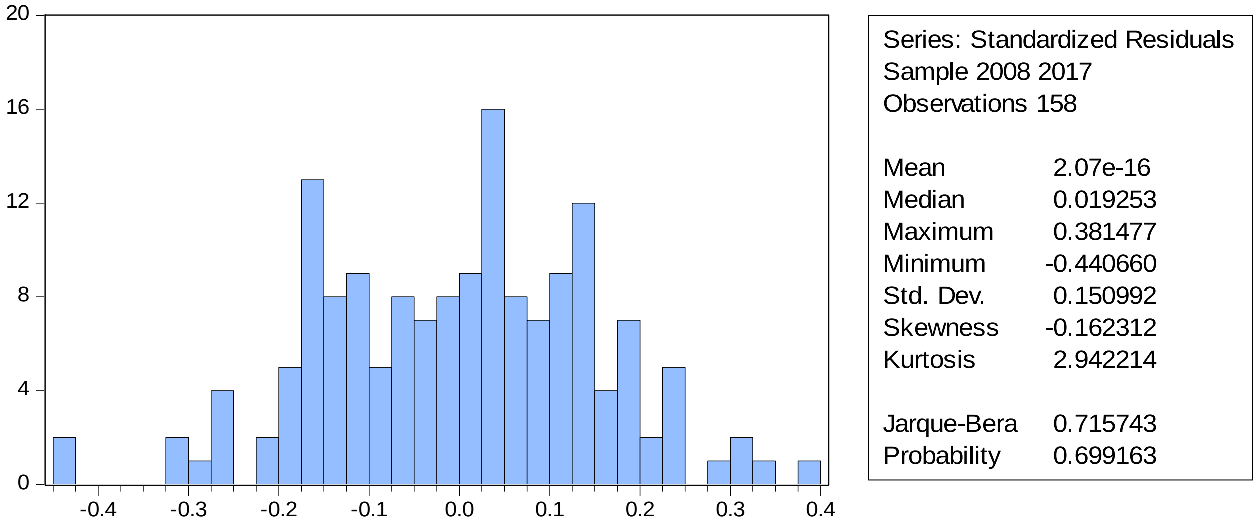
Normality test is defined to have a coefficient of kurtosis of 3. The Jarque-Bera statistics was used to test normality of the variable under different hypothesis, thus follows that series will be normal distributed at 5 % level of significant is the probability of JB is greater than 0.05.

H0: The series is normally distributed

H1: The series is not normally distributed

Decision; Reject H0 if P-value JB is less than significant level of 0.05. Otherwise do not reject.

4.3 Normality Test



Source: E-View histogram normality test result.

Based on the above test result above Fig.3.1 the residual were normally distributed because histogram is relatively bell-shaped and its Jarque-Bera is insignificant at 5% level. Therefore, the null hypothesis state that the residual follow a normal distribution would not be rejected.

4.3.2 Serial Correlation Test

This is essentially the same as saying there is no pattern in the errors. Again, the population distribution cannot be observed, so use their sample counterpart, the residuals, if there are pattern in the residuals from the model, we say that they are auto correlated.

Test of autocorrelation by using Durbin-Watson (DW) , it test the relationship between an error and its immediately previous value .DW is approximately equal to 2(1-p) , where p is estimated correlation ,according to Brook (2008) , DW has two critical values , the upper critical value (du) and a lower critical value (dl) and also, there is an intermediary region when the null hypothesis no autocorrelation can neither be rejected nor not rejected , the study used the du and dl value for 158 observation as per DW table for 158 observation with four explanatory variables at 1 % level of significant the dl and du value 1.530 and 1.722 respectively .

4.3.4 Multi Collinearity Test

This problem occurs when the explanatory variable are very highly correlated with each other. If there is no relationship between the explanatory variable, they would be said to be orthogonal to one another, Adding or removing a variable in regression equation.

Test for absence of series multicolinearity assumption, when there is multicollinearity, the amount of information about the effect of explanatory variables on dependent variables decrease. In this study correlation matrix for eight variables show below on the table 4.2 the highest correlation 0.179124 which is between -0.14286 and 1.0 .The result of correlation matrix show there are no correlation, which above 0.75 and 0.9 .

4.3.5Hetroscedastic Test

This means that error term do not have a constant variable (Brook, 2008), White general test for hetroscedastic is one of the best approaches because it make few assumption about the form of the hetroscedasticity . it assume that the variance of error is constant but otherwise , they are said to be heteroscedastic, if a constant term included in regression equation, this assumption will never be violated,

4.4. Regression Analysis

A major weakness of correlation is that it doesn’t allow to identifying cause from consequences to overcome this short coming, the researcher use regression analysis to investigate the effect of working capital components on profitability of the firms, the result are presented below:

The primary concern that degree of multicollinearity increase the regression model estimated of the coefficient becomes unstable and the standard errors for the coefficient can get wildly inflated. To avoid the possibility of multicollinearity, it is important that the result from collinearity diagnosis tics should have tolerance value above 0.10.

The value of F-test explained the significant of the relationship between dependent variable and independent variables.

The R2 measures the success of regression in predicating the value of the dependent variables in sample. The statistical will equal one if the regression fits perfectly, and zero if fit no better than the simple mean of dependent variables.

The P-value show at what percentage the level of each variable is significant or insignificant. There is the rule of thumb which can be used to determine the adjusted R2 value < 0.1 poor fit, 011-030 modest fit, 0.31-0.5 moderate fit, > 0.50 strong fit.

Table-4.4

Dependent Variable: ROA
Method: Panel Least Squares
Date: 05/09/20 Time: 02:14
Sample: 2008 2017
Periods included: 10
Cross-sections included: 16
Total panel (unbalanced) observations: 158

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.517924	0.024936	20.77045	0.0000
ARD	3.84E-05	1.69E-05	2.274945	0.0243
APD	-8.54E-05	4.47E-05	-1.908544	0.0582
CCC	5.82E-06	9.91E-06	0.587945	0.5575
IHP	-1.95E-05	1.22E-05	-1.605462	0.1105
CLTAR	0.002249	0.001150	1.955495	0.0524
DR	-0.040163	0.020404	-1.968425	0.0509
CATAR	4.16E-10	2.33E-10	1.787270	0.0759

R-squared	0.113439	Mean dependent var	0.507742
Adjusted R-squared	0.072066	S.D. dependent var	0.160396
S.E. of regression	0.154509	Akaike info criterion	-0.847828
Sum squared resid	3.580937	Schwarz criterion	-0.692760
Log likelihood	74.97839	Hannan-Quinn criter.	-0.784853
F-statistic	2.741873	Durbin-Watson stat	1.901804
Prob(F-statistic)	0.010458		

The coefficient of account receivable period with return on Assets is 3.84 at p-vale is 0.02, which implies that one day increasing in account receivable period will decrease firms profitability by 3.84 % .The coefficient of cash conversion cycle with return on assets is 5.8 at p-vale is 0.5, which implies that one day increasing in cash conversion period will increase firm's profitability by 5.8 %. The coefficient of account payable period with return on asset is -.8.5 at p-vale is 0.05, which implies that one day increase in account payable period will increase firm's profitability by 8.5 %, the coefficient of inventory conversion period with return on asset is -1.9 at p-value is 0.1, which implies that one day increasing in inventory conversion period will decrease firm profitability by 1.9 %.

The F-test which used measure the model specification indicated that the model is fit with F-vale 2.7 at significant p-vale 0.01. In addition, the observed DW test result revealed 1.901, which is approximately 2.00; therefore, there is no auto correlation in regression result.

4.5 Discussion of the Regression Result

4.5.1Account Receivable Days and Profitability

The results of this regression indicate that the coefficient of account receivable days is positive and P-value of 0.0243 attached to the test statistic shows significance of 5% level. This result suggested that decrease number of account receivable period from the sale affects positively the profitability of firms, in other hand, increasing the number of account receivable period decrease firm's profitability. It implies that the increase or decrease in the number of days taken by firms to collect cash will significantly and positively affect profitability of the firms, because if the firms collect its account receivable quickly, the fund will be available for others usage. In addition to this a firm a positive relation between account receivable has an advantage of the firms able to pay their bill quickly. This result is consistent with previous studies of (Arshad,2003 Mathuvu,2010), In the other hand, the result is not consistent with the previous studies of (Dellof,2003, Padach,2006, Lazaridisand tryfonidis,2006 Mifta,2016 and Wubshet,2014).

4.5.2Accounts payable and profitability

The result of this regression indicated that the coefficient of account payable days is a negative significant relationship between accounts payable period and profitability, the implication of the result is the benefit of early payment brining discount. This study is consistent with the previous studies of (Deloof, 2003, Falope and Ajilar, 2009), On the other hand the study is inconsistent with the previous studies of (Arshad, 2013, Lazaridis and Tryfondis, 2006, Mifta, 2016)

4.5. Cash conversion cycle and Profitability

The result was positive insignificant relationship between cash conversion cycle and firms profitability, It implied that when cash conversion cycle increase profitability of PP Woven Bags manufacturing companies also increase. The positive relationship between profitability and cash conversion cycle may explained by the nature of the firms and the position of the firms product with high profit. The study is consistent with previous studies of (Arshad, 2003, Padachi, 2006) and in the other hand, the study is inconsistent with the studies of (Dellof, 2003, Falope and Ajilare, 2009, Mifta, 2006wobshet, 2014).

4.5.4 Inventory holding period and profitability

The results of this study reveal that inventory conversion period and firm's profitability has insignificant negative relationship at p-value of 10%. This result implied that increasing of inventory conversion period decrease firms profitability, If firms have held excess level of stocks that lead to unnecessary cost likes, storage cost, handling cost and even it tied working capital of the firms , on the other hand when the level of inventory is very low , it create the problem of inconsistent of provide product to the customers ,this lead to loss of good will from customers upon the firms, This result is consistent with the previous work of Dellof,(2003), Padachi,(2006), Lazaridis and Tryfonodis, (2006) ,Falope and Ajilore,(2009), Wobshet,(2014), Mifta,(2016).

4.5.5Current liabilities to total assets ratio and profitability

Working capital financing policy is measured by the relative aggressiveness or conservatives in using current liabilities to financing working capital assets.

The result of current liabilities to total assets ratio is a positive and significant at 10 percent level. The positive coefficient in this study indicate that the positive effect of aggressive working capital financing policy on firm profitability. The implications of this positive result that the increase or decrease in current liabilities to total asset ratio will significantly and positively affect the profitability of the firms, the higher the amount of current liabilities the firms use to finance its working capital assets then, the more profitability the firms will be and it show that there is strong positive relationship between aggressiveness in working capital financing and firms profitability.

Table 4.6 Summery of Actual and Expected sign of explanatory variables on the dependent variable

Independent variables	**Expected Impact on return on asset**	**Actual Impact**
ARD	Positive and significant	Positive and significant
APD	Negative	negative
CCC	Negative	positive
IHP	Negative	insignificant

From the above table (Table 4.3) it can summarized as follows:

- Account receivable period has a positively relation with profitability of the firms under this study and statistically significant. This result is consistent with the finding from previous studies conducted by (Arshad, 2013).
- Account payable period has a negatively relation with profit abilities of the firms in this study and also significant. This finding is consistent with the finding of some prior researchers such as (Arshad 2013, Lazaridis and Tryfanidis, 2006).
- Cash conversion cycle is statistically insignificant and has a positive coefficient relation with profitability of the firm. This finding is consistent with the finding of some prior studies such as (Blinder and Maccini, 1999).
- Inventory conversion period has negatively relation with firms profit abilities of the assessed firms. This result is consistent with the finding from previous studies conducted by (Padachi, 2006, Deloof 2003, Falope and Ajilare, 2009).

CHAPTER FIVE:

Conclusions and recommendation

This chapter discusses conclusion and implication draws from the findings discussed in the previous chapters of the research and give future direction, However, this chapter categorized in to three main topics that are conclusion about the findings, recommendation and suggestion for future research direction.

5.1 Conclusions

The study used four measurements 0f working capital to test whether working capital management has statistically significant effect on firms profit abilities. Firms which are better at managing working capital are found able to build better competitive advantage Khan, (2009). Efficient level of working capital should be present smooth running of business regardless of the nature of the business.

Maintaining efficient level of working capital is very important to PP woven bags manufacturing companies and others manufacturing companies because of indicating in this study.

A sample of 16 PP woven bags manufacturing companies found in around and in Addis Ababa, which covered the period of 2008 to 2017 has been used to conduct the study.

The study used return on assets as dependent variable, it is the measure of profitability of the firms and account receivable period, account payable period, cash conversion cycle and inventory holding period are used as independent working capital components, in addition to these, debt ratio, current liabilities total assets ratio and current assets total assets ratio as control variables, they used as comprehensive measure of working capital financing policy.

The is significant positive relation between profitability and account receivable period, this indicated that the shorter it takes firms to receive their receivable outstanding the more profitable the firms will be and it help the companies the quickly collect fund will be available for other productive purpose of the companies.

The study result found negative relationship between account payable period and firm profitability, which means if firms delay their payment they will earn less profit.

The study also found that positive insignificant relation between cash conversion cycle and firms profit abilities of PP woven bags manufacturing companies, cash conversion cycle an additive function of account receivable period , account payable period and inventory holding period .(cash conversion cycle is equal to account receivable period plus inventory holding period minus account payable period) managing cash conversion cycle efficiently means efficiently manage all of the three variables.

The study is found that a significant positive relation between CLTAR and firms profit abilities, an increase in current liabilities to total assets ratio leads to high profitability, and the higher ratio shows more aggressive working capital finance policy, in turn which means more investment in current liabilities as compare to long term debts. An aggressive working capital financing policy result high profitability

The result from current assets to total assets ratio shows a positive and insignificant relation between the firms profitability, the implication of this result shows that conservativeness in working capital investment policy lead to high profitability.

5.2 Recommendation

The findings of this study are helpful for the financial managers of the PP woven bags manufacturing companies as well as all manufacturing companies engaging any business and it provide the companies should adopt efficient and effective working capital management policy to keep working capital at optimal level.

The research based on the above findings and conclusion drawn recommends to the managers and employees of this under study manufacturing companies and other manufacturing companies.

- By their own nature of marketing ,the manufacturing companies under study are face working capital shortage because these companies produced their product most of time at summer time (Kiremt) and stored the product their produced until winter time (Bega) when the harvest time has come because they sold their product at this time ,by this reason because their working capital tied by this product face working capital shortage, theresearcher of this paper recommends these companies they must manage their cash conversion cycle efficiently , because management of cash conversion cycle is an important factors in working capital management and managers of the firms should apply suitable cash conversion cycle and control mechanism to be profitable, and also manufacturing companies must try to keep these numbers of days to minimum level by developing a clear procedures for collecting the receivable and managing their inventories.
- The researcher recommends that inventories are used to provide moderately so that the purchasing ,production and sale department get work together for optimal level to avoid a stock and eliminate the working capital problem , moreover, the researcher recommended that marketing , purchasing and manufacturing departments should be have to create strong linkage and strong communication each other’s.

5.3. Suggestion for further research

This research tried to meet the gap between the existing literatures but it also has its own limitation and those limitations can be addressed by other researchers in the future time.

Further study on effect of working capital management on profitability should be done with more firms including those not mention in this study and include all the sectors and extend the period of study and also future researchers advised to adopted other sets of WCM indicators to test how respective practice influence the company's financial performance.

Future research can be extend in the area of working capital management practice in in different sectors other than manufacturing firms, because at any sectors working capital is an important issues may it differ the magnitude of using it at different sectors, because, it manage working capital adequately that result the firms will be profitability

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