



IMPACT OF WORKING CAPITAL MANAGEMENT ON FIRMS' PERFORMANCE:
EVIDENCE FROM LARGE TAXPAYER PRINTING FIRM'S IN ADDIS ABABA,
ETHIOPIA.

A Thesis Submitted to the Department of Management, College of Business & Economics Addis Ababa University, in Partial Fulfillment of the Requirements for the Master of Business Administration (MBA)

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STATEMENT OF DECLARATION

I confirmed that, this study is my own work which is prepared under the guidance and continual support of Mohammed Seid (PhD). All sources of materials which used for this thesis have been appropriately acknowledged. This final thesis is submitted for the partial fulfillment of the requirement for the degree of Master of Business Administration (MBA) in Management in Addis Ababa University.

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STATEMENT OF CERTIFICATION

This is to certify that the thesis entitled “Impact of Working Capital Management on Firm’s Performance: Evidence from large taxpayer Printing firms in Addis Ababa, Ethiopia submitted by Aychalet Ketema to Addis Ababa University towards partial fulfillment of the requirements for the award of the degree of Master of Business Administration in Management is carried out by him under my supervision and guidance.

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MBA Program

In Partial Fulfillment of the Requirements of Masters of Business Administration (MBA)

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ABSTRACT

A well managed working capital promotes a firm's profitability and it also acts in favor for the growth of shareholders value. Many researchers have indicated that, firms cannot survive and continue their daily operations without sufficient level of working capital. Moreover, large numbers of business failures in the past have been blamed on the inability of the financial manager in managing working capital of firms. Previous researches have examined the relationship between working capital management and firm's performance. The main objective of this study was to investigate the impact of working capital management on profitability of large tax payer printing firms. This study examined the impact of working capital management on firm's performance by using financial statements of large taxpayer printing firms in Addis Ababa, Ethiopia from the period of 2011 to 2015. In this study, return on asset (ROA) was used as a dependent variable while cash conversion period, Accounts collection period, inventory conversion period, current ratio and firms size were used as an independent variables. The data was analyzed using descriptive and regression analysis method. Statistical analysis was computed by using Eviews version 9. In agreement with the hypothesis of this research, the regression analysis has shown that working capital management components have a significant impact on firm's performance. The result of this study has also indicated 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. However, the researcher found insignificant negative relationship between the size of firm and profitability. Therefore, managers of large taxpayer printing firms can maximize firm's value and profitability by improving management of working capital component at optimal level.

Key terms: Working capital management, Printing firms, profitability

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ACRONYMS

CCC-Cash conversion cycle

ACP-Account collection period

CA=Current Assets

CL = Current Liabilities

CUR=Current Ratio

ICP=Inventory Conversion Period

ROA=Return on Asset

ERCA= Ethiopian Revenues & Customs Authority

CHAPTER ONE

1. INTRODUCTION

1.1. BACKGROUND OF THE STUDY

Any person cannot close eyes to the necessity of financial management in a business either retail or large manufacturing unit. It is important due to the fact that it plays a great role in keeping any business operations active.

Working capital management is the management of the firm's current assets and current liabilities. An efficient working capital management requires that managers to find right investment levels of cash, marketable securities, receivables and inventories and the appropriate level of short term financing. Many financial managers spend a large amount of time managing on managing current assets and current liabilities. The reasons for managers devote their time and efforts for effective working capital management; it is essential for firm's to discharge its financial obligations and provide an attractive return to shareholders; it requires every day concentration & an adequate control to balance profitability and liquidity and also that creditors serve as the major provider of external financing for companies (Baker and Powell ,2005).

Working capital management has primary goal for firm's survival because of its special effects go to firm's profitability, risk and consequently its value. It has direct influence on profitability and liquidity of a firm's (Hoang, 2015).

Managing working capital to balance liquidity & profitability are challenging decisions in firm's daily operation. In other view, an asset –liability discrepancy may improve firm's profitability in short run, but at risk of its insolvency, on other hand much attention on liquidity will be at outlay of profitability (Abuzayed, 2012).

“Working capital management is the ability firms to control effectively and efficiently the current assets and current liabilities in a manner that provides the firm with maximum return on its assets and minimizes payments for its liabilities” Makori and Jagongo (2013, 1).

A review done by Van Horne and Wachowicz (2004) also argued that, excessive level of current assets may have a negative effect on the firm's profitability. Whereas a low level of current assets may lead to lower level of liquidity and stock outs results in difficulties in maintaining smooth operations (as cited in Woubshet,2014, p.2)

“Manager needs to understand how to develop effective working capital policies to ensure growth, profitability and long term success for their firms. Firms experiencing rapid growth may easily fall in to growth trap with insufficient levels of current assets to support increasing higher levels of sales. In such case a firm may go broke while making profit. Financial managers should strive to maximize firm value by managing current assets and current liabilities in a way that balances profitability and risk. This goal involves determining both the optimal level of investment in current assets and the appropriate mix of financing sources to support the required investment current assets. A firm needs a sufficient level of current assets (cash, marketable securities, account receivable and inventory) to ensure timely payment of current liabilities” Baker and Powell (2005,158).

Shortage of working capital lead to lack of liquidity as well as loss production sales; on contrary, excesses balance of working capital could e seen as loss of investment opportunities (Woubeshet, 2014).

Many researchers’ and authors’ clearly identified that effective working capital management focus on improving firms’ performance to achieve their day to day operations. In addition, it is obvious that, proper working capital management is significant to solve the challenges in financial instability of business organizations. Infact, a lot of research has been conducted in different countries to show the impacts of working capital components on firms Performance. However, there are few studies done in Ethiopia on working capital management and firm profitability concerned the manufacturing sector only. By considering this problem, the purpose of this study deals with impact of working capital management on large taxpayer printing firms.

1.2. STATEMENT OF THE PROBLEM

Every organization whether profitable or not, despite the size and nature of the business, requires necessary amount of working capital. It is also the most fundamental factor for maintaining liquidity, survival, solvency and profitability of business.

Working capital management is convincing that firms cannot continue to carry out their daily operations without adequate level of working capital. The central part of working capital is the management of working capital since it affects both liquidity and Profitability of firms (Manoori & Muhammed, 2012).

Researcher emphasized that working capital management is a very susceptible area in the field of financial management, because it involves the challenging decision on the composition of current asset and current liabilities (Mathuva, 2010).

Tobi, Osidero, & Kareem (2013) described that the profitability of a firm mainly depends on the firm's capability to manage its working capital. Therefore, firms to know how effectively manage their working capital to be able to guarantee the financial health of the firm.

The review done by Filbeck and Krueger (2005) pointed out that businesses success heavily depends on the ability of the financial managers to effectively manage receivables, inventory and payables (as cited in Dong & Su, 2010, P.60). In addition, a review by Reddy and Kameswari (2004) explained that a poor and inefficient working capital management leads to tying up funds in idle assets and reduces the liquidity and profitability of a company (as cited in Samson, Mary, Yemisi, & Erekpitan, 2012, p.62).

Working Capital Management and its impact on firms' performance had been studied significantly by different researchers such as (Abuzayed, 2012; Afza & Nazri, 2011; Deloof, 2003; Makori & Jagongo, 2013; Padachi, 2006; Mifta, 2016; Woubeshet, 2014) and so on.

Financial managers have to be aware of how to build up effective working capital policies to ensure growth, profitability and long term achievement for their firms and make every effort to take full advantage of firm value by managing current assets and current liabilities in a way that balances profitability and risk (Baker and Powell, 2005).

Large numbers of business failures in the past were attributed to the failure of financial managers to plan and control the working capital of their respective firms. These managerial inadequacies are still manifesting in organizations today in the forms of high bad debts,

over/under stocking, cash crises among others with their concomitant effect on their operational performance (Egbide, 2009).

Woubshet (2014) had studied the impact of working capital management on firm's performance of 11 sample metal manufacturing private limited companies listed in Addis Ababa. The result revealed that there were a significant negative association between account receivable periods, Inventory conversion period, account payable period and cash conversion cycle with firm's performance.

Niman (2015) studied the impact of working capital management to firm's profitability evidence from selected manufacturing companies in Somali Regional state of Ethiopia. He confirmed that company's managers can create profits or value for their companies and shareholders by handling correctly keeping each different working capital components. The researcher also found that a significant negative relationship between liquidity and profitability.

Mifta (2016) examined the impact of working capital management on profitability of large taxpayer manufacturing share companies in Ethiopia. He found that working capital components have a significant effect on firm's performance.

The findings of previous studies have shown that working capital management has significant association with firm's performance. Because of the reason, whether searching on internet, browsing through the books and journals the researcher didn't get directly related specific research study related printing firms carried out in Ethiopia. Therefore, the current study will focus on evaluating the impact of working capital management on the financial performance of large taxpayer printing firms in Addis Ababa, Ethiopia.

1.3. OBJECTIVES OF THE STUDY

1.3.1. GENERAL OBJECTIVE

The purpose of this research was to investigate the impact of working capital management on firms' performance on large taxpayer private printing firms from the period 2011 to 2015 G.C in Addis Ababa, Ethiopia.

1.3.2. SPECIFIC OBJECTIVES

This study on the impact of working capital management on firms' performance on selected large taxpayer's printing private companies in Addis Ababa assumes the following specific objectives:

- To evaluate the effect of inventory conversion period on firm's performance.
- To evaluate the effect of account receivable on firm's performance.
- To evaluate effect of cash conversion period on firm's performance.
- To evaluate effect of current ratio on firm's performance.
- To evaluate the effect of firm size on firm's performance

1.4. RESEARCH HYPOTHESIS

Following the research objective the discussion has covered the hypotheses on impact of working capital management on firm's performance. This study attempted to test.

H₀₁: Cash conversion period has negative significant impact on the firms' performance measured in terms return on assets.

H₀₂: Inventory conversion period has negative significant impact on firms' performance measured in terms return on assets.

H₀₃: Account collection period has negative significant effect on firms' performance measured in terms return on assets.

H₀₄: Current ratio has negative significant impact on the firms' performance measured in terms return on assets.

H₀₅: Firms size has positive significant relationship with firms performance measured in terms of return on asset

1.5. SIGNIFICANCE OF THE STUDY

The result of this study will benefit the financial manager of large taxpayer printing firms by creating awareness on optimum level of working capital management. The study will also reveal how essential working capital management strategies such as policies, practice and techniques are used to arrange the needed funds on the right time from the right source and for the right period and how a trade off between liquidity and profitability will be achieved in studied large taxpayer's printing firms. Similarly the result of this study will provide basic guidelines for researchers, accountants and professionals, financial managers, and policy makers.

1.6 SCOPE AND LIMITATIONS OF THE STUDY

1.6.1 SCOPE OF THE STUDY

This study was delimited to study the impact of working capital management on firms' performance of large taxpayer printing firms located in Addis Ababa city. The total size of the study was nine large taxpayer printing firms and the study took five years data from the year 2011 to 2015. The study used one dependent variable return on asset and five independent variables i.e. cash conversion cycle, inventory conversion period, account collection period, liquidity measured by current ratio and size of firm.

1.6.2 LIMITATION OF THE STUDY

Because of the secrecy of financial data of firms, Ethiopian Revenue and Customs Authority office has warned not to disclose the name of the printing firms included in this study. This study has covered only large taxpayer's printing firms and moreover, the independent variables considered in this study might not be the only factors influencing firm's performance.

1.7 DEFINITION PRINTING FIRM'S

According to ISIC (Rev.4) the printing service is classified under the category of manufacturing business. This group includes printing of products, such as newspapers, books, periodicals, business forms, greeting cards, and other materials, and associated support activities, such as bookbinding, plate-making services, and data imaging. Printing can be done by using various techniques and on different materials.

1.8 ORGANIZATION OF THE STUDY

This paper is organized in five chapters;

Chapter one provides an introductory overview of the full study including the statement of the problem, objectives of the study, research hypothesis, relevance of the study, delimitation and limitation of the study, and organization of the study.

The second chapter provides literature review on working capital management. Chapter three presents the methodology used for the study and gives a detailed overview of the population, sampling technique, the research design, data source and collection procedures and data analysis procedures. It also provides the description of the relevant variables that was included in the model, model selection criteria and diagnostic test analysis on the model specification used for the study.

Chapter four focuses on the research results and discussion. The final chapter five includes summarizes conclusion and recommendations for the study.

CHAPTER TWO

2.0. REVIEW OF LITERATURE

Various studies have shown the relationship between working capital management and firm profitability in various markets. Even though the results are quite mixed, but a majority of studies have concluded a negative relationship between working capital management and firm profitability. This section has presented the major theory and studies related to this study in order to assess and identify the research gap.

2.1. THE NATURE AND PURPOSE OF WORKING CAPITAL

In finance financial firm's uses their generated funds for fixed investment specially they invested in the fixed assets. These fixed assets are deployed in the business to earn profits during the life of service year. In other hand, firms utilize their funds on short-term assets to run the business operations.

Atrill & McLaney (2006) described that the level of current assets and current liabilities can varies from firms to firms depending up on the nature of the business, production policy and market conditions. In case of manufacturing business, they invest largely on inventories such as raw materials, work in progress and finished goods are the day to day activities of the firm's. The firm's will normally sell its finished products or services on credit and buy goods or services on credit give rise trade receivables and trade payables respectively.

Working capital is the most critical components of a business for successful advancement if carried out effectively, efficiently and consistently will guarantee the health of organization; It also ensures a company has adequate cash flow for its short term debt obligations and operating outflow: "Implementing an effective working capital management system is an excellent way for many companies to improve their earnings" Samson et al (2012, 62).

2.2. DANGERS OF EXCESS OR INSUFFICIENT WORKING CAPITAL

Excess of working capital is unsafe as too little working capital because of the portion of the funds not fully being utilized by firms. Most of the time managements spend funds on slow moving assets especially on inventories. Extra working capital should be avoided unless it minimizes firm's profitability. On the reverse, inefficient working capital particularly shortage of cash can brings challenges of solvency problem if it fails to finance their short term obligation.

Samson et al., (2012) emphasized that dangers of excess working capital to a business are indicates that unnecessary holding of inventories, imperfect credit policy which follows by ineffective collection period, management ineffectiveness and affinity to make dividend policy freethinking. Due to the stated problem, the firm's incurred unnecessary storage costs, mishandling, stock obsolescence and bad debts which adversely affects the business competitiveness' and its profit. In contrary, firms have been with in inefficient working capital forced to inactive growth, loss of credit opportunity, loss cash discount due to in adequate working capital to pay early in discounting period, loss of good will one of severe challenges which business loss their reputation, if firms unable to pay their creditors at maturity period or provide goods or services to their potential customers on time and organizational control by creditors as the result of failure to finance its obligation.

2.3. FACTORS DETERMINING WORKING CAPITAL REQUIRMENTS

In the review of Adeniji (2008) mentioned that there are large number of factors up on which determining working capital need a concern depends on such as size, nature of a firm, operations of a firm, change in economic circumstances, advancement of technology, management ability etc. Even if, many factors influence the requirement of working capital, we can't rank the factors which affect firm's working capital requirements because each of them has its own importance and influences. He noted that firms working capital requirements are particularly dependent up on the nature of the business ,size of the business, sales & demand conditions , Technology & manufacturing policy & credit policy of firms, operation efficiency, price level change and credit granted by suppliers (as cited in Samson et al., 2012, p.63).

2.4. SIGNIFICANCE OF WORKING CAPITAL COMPONENTS MANAGEMENT

2.4.1 CASH MANAGEMENT

Afande (2015) explained that cash is an central component of business liquidity in firms. A huge cash speculation minimizes the chances of liquidity risk, but it decline the profitability of company.

Atrill and Mclaney (2006) emphasized that amount of cash held tends vary considerably between business; a business may decide to held at least some of assets in the form of cash. Many business companies prepare cash budget to manage their cash inflow and outflow efficiently and effectively. An adequate controlling over cash helps to managers to take an appropriate action when firms faced over cash surplus or serious cash deficit. When cash

surplus is expected, the firms utilize its resource by investing in other investment opportunities. But when a firms in serious cash deficit, mangers decide on the best use of their capability to reduce the problem by using borrowing options, liquidating assets, postponing payments and collecting outstanding receivables. Cash conversion cycle has a prominent influence on financing necessities of business; moreover, the longer cash conversion cycle takes the firm to serious financial risks.

Brealey and Myers (2003) indicated that cash is the oxygen which enhances a survival and prosperity, and is the basic indicator of business health. Cash includes both cash in hand and cash at bank. A company needs cash for transaction and speculation purposes. It also provides the liquidity to the company but the question is why company should have cash reserves when it has an option to utilize it by investing it in short term securities.

Detaining more cash in operation is a cost to firms, unless firms raise funds in capital market or invested to earn a return in other opportunities (Baker and Powell, 2005).

Deloof (2003) studied that does working capital management affect profitability Belgian firms? In his study he examined that cash conversion cycle is time lag between the expenditure for the purchase of raw materials and collection of sales of finished goods. The longer time lag the larger investment in working capital. In addition, he stated that a longer cash conversion cycle might increase profitability because it leads higher sales.

Makori and Jagongo (2013) argued that cash conversion cycle is the time span which taken to convert the raw material to the finished goods and receive cash from sales.

Cash conversion cycle (CCC) = (Account collection period (ACP) + Inventory conversion period (ICP)-Account payment period (APP).

2.4.2 ACCOUNT RECEIVABLES MANAGEMENT

“Account receivable is defined as the customers who are not yet payment for goods or a service with the firms has performed. He also emphasized that the main aim of debtor management is to reduce the time laps between completion of sales and receiving the payment” Hassan et.al (2014, 118).

Atrill and Mclaney (2006) emphasized that selling of goods and services on credit will result incurring costs like credit administration, bad debts and opportunities forgone in using the funds for more profitable purpose. Therefore, the firms must have comprehensible policies concerning such credit analysis ; which customers should receive credit; How much credit

should be offer; what length of credit it is prepared to offer; what collection policies should be adopted and how the risk of non- payment can be reduce. In addition the author clearly stated that firms should consider the **five Cs of credit** criteria for firms before giving credit offer for their customers in order to reduce the risk of collectability. The five Cs of credit are focus on customers attributes such as Capital, capacity, collateral /some kind of security/, conditions /state of the industry customer operates/ and Character /willingness to pay/.

Weygandt, Kimmel, & Kieso, (2011) Stated that account receivable measures the number of times on average in which a company collects receivables during the period.

This variable is defined as the number of days which is needed to collect the receivables. In other words, it is the average period for which receivables are outstanding (Makori & Jagongo, 2013).

$$\text{Account collection period} = \frac{\text{Accounts Receivable} \times 365}{\text{Net sales}}$$

2.4.3 INVENTORIES (Stock) MANAGEMENT

Inventory is defined as the list of stock of raw materials, working in progress or finished goods which are waiting to utilize in production or to be sold. Inventories or stocks are the major parts of current assets which have a significant effect on working capital (Atrill & Mclaney,2006).

A review done by Brealey and Meyers (2006) explained that firms store the inventories to minimize the risk of running out of stock and losing sales as well as customers (cited by Afande, 2015, p.160).

Atrill & Mclaney (2006) described that the most common reason that firms hold inventories to meet day to day requirements of customers and production. Sometimes a business may hold excess level of stock more than necessary for the purpose of production or to be sold, if it is believed that future supplier's may be inconsistent or the cost of inventories will go up in the future.

Firms will normally minimize the amount of inventories held to appropriate level. This because there are significant costs associated with holding of excess inventories. These costs include; Storage and handling costs; financing costs; the cost of pilferage and obsolescence and the cost of opportunities forgone in tying up funds in the form of assets. In contrary to this, a business must also recognize that, if the level of inventories held is too low will

exposed loss of sales; loss of good will from customers; high transport cost incurred to replenish quickly and purchasing at higher price.

“Inventory turnover measures the number of times, on average, the inventory sold during the period; its purpose is to measure the liquidity of the inventory” (Weygandt et al., 2011, 663).

$$\text{Inventory conversion period} = \frac{(\text{Inventory} \times 365)}{\text{Cost of Goods Sold}}$$

2.4.4 LIQUIDITY

Liquidity ratios indicate a firm's to pay its obligation in short run. Potential lenders carefully scrutinize the status of the company before making short-term loan to firms.

Financial managers must pay close attention to liquidity ratios to ensure they reveal a high probability of firm being able to promptly and full pay its obligation. In addition the preceding paragraph, the authors stated that the most widely measurement used to determine liquidity ratio is current ratio which is the result of current assets dividing to current liabilities (Baker & Powell, 2005).

$$\text{Current ratio (CUR)} = \frac{\text{current assets}(CA)}{\text{current liabilities}(CL)}$$

Eljelly (2004) stated that one of the competent liquidity management involves planning and controlling current assets and current liabilities in such approach that eliminates the risk of the failure to meet due short term obligations and avoid excessive investment in current assets. The author in addition explained that in every area of financial management, finance managers are always faced with dilemma of liquidity and profitability; hence have to strike a balance between liquidity and profitability of firms

Most of the time, liquidity goals of a firm is to have sufficient cash to pay for bills, to make unexpected purchase and finally, firms have an adequate cash reserve to meet emergencies in all time. Whereas, profitability goal on the other hand requires that, funds of firm are used so as to yield higher returns. Therefore, when one increases, the other decreases (Brigham and Houston, 2003).

2.4.5 Firms Size

Size of the business directly affects the working capital requirements. The greater the size of a business unit generally large will be the requirements of working capital. However, in some case even a smaller company may need more working capital due to high over charges and inefficient use of resources.

Bayyurt (2007) stated that big firms have more competitive power when compared to small firms in fields requiring competition. Since they have a bigger market share, big firms have the opportunity to profit more. In addition to this, big firms are able to seize the opportunity to work in the fields which require high capital rates since they have better resources, and this situation provides them the opportunity to work in more profitable fields with little competition (as cited in Mahdi et al., 2014).

Manoori & Muhammed (2012) stated that large firms have enhanced access to capital markets and have large capacity to extend more trade credits that enable them to have more investment in working capital as compared to smaller firms. He used natural logarithm of total assets as a proxy for firm size.

According to Abiodun (2013) the size of a firm plays an important role in determining the kind of relationship the firm enjoys within and outside its operating environment. The larger firm is greater influences of on its stakeholders. The size of the firm is one of important variables in many studies. In addition, in the review of Chiou et al., (2006) make obvious that the working capital necessity has significantly affects on size of firms (as cited in Hassan et al., 2014, 121).

2.4.6 RETURN ON ASSET (ROA)

Return assets the dependent variable in this study to measure the ratio how profitable companies are relative to its assets. It also indicates that how well management is employing the company's total assets to make profitable. Therefore, the higher the return ratio mean that the management more efficiently and effectively utilizing its assets.

The authors emphasized that, "The rate of return on total assets, or simply return on assets, measures a company's success in using assets to earn profit" (Horngren et al., 2012, 739).

Hassan et al., (2014) described return on asset: Return on assets is very important and provide a standard for changing how efficiently financial management employs the average amount which is invested in the firm's assets, whether the amount come from investor or creditors. A low level of return on assets shows that the profits are low for the amount of assets. The return on asset ratio calculates how efficiently profits are being collected from the assets employee. Thus, the variable return on assets, which is calculated by the ratio earnings before interest and tax over total assets, was introduced into the analysis and it is expected that this factor will have a negative effect on the cash conversion cycle.

Return on asset explains that how efficient a company is to utilize its available assets to generate profit. It calculates the percentage of profit a company is earning against per dollar of assets (Weston and Brigham, 1977).

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}}$$

2.5 WORKING CAPITAL POLICIES

In simple definition working capital is administration of current asset minus current liabilities. However managing working capital is not a simple task like its definition. For example when a firm is unable to manage its current liability through current assets liquidity problem may arise. On other hand, when excess current assets over its current liability mean that the company have an idle resources.

Igor and Suzana (2016) stated that a right working capital policy must maximize revenues and minimize costs at acceptable degree of risk. In other hand a review done by Mathura (2003) emphasized that working capital policy may broadly be divided in to three categories as: Conservative policy; Aggressive policy and Moderate policy.

Conservative policy, the company may prefer to hold rather heavy cash and bank balance in current account or investments in readily marketable securities, meanwhile with higher stocks of raw materials and finished goods, in the preparing for reducing risks for out of stock and loss sales. In addition, a more conservative working capital management policy places larger amount of capital invested in liquid assets, but at the sacrifice of some profitability.

Aggressive or Restrictive Working capital policy, company may result disproportionately losses by risks of stock outs and the consequential loss of production as well as losing the sales and negatively influence of the profitability of accompany. An approach to aggressive working capital management policy of liquidity management results in a lower cash conversion cycle by reducing the inventory period and the account receivable period while stretching the account payables period. Aggressive asset management leads to the capital being minimized in current assets versus long-term investments. This would result in higher profitability but greater liquidity risks. Aggressive financing policies utilize higher levels of normally lower cost of short-term debt and less long-term capital. Although lowering capital costs, this increases the risk of short term liquidity problem.

A moderate working capital policy, the level of working capital will be moderate, neither too high nor too low, but just right (as cited by Afande, 2015,158).

2.6 CRITICAL REVIEW OF PREVIOUS EMPERICAL STUDIES

Many researchers have studied about working capital management on firm's performance from different perspective. The following are presented which relevant and useful for this research.

Afande (2015) examined Relationship working capital management and profitability of cement companies in Kenya. He found that efficient working capital management increases firms profitability, hence a negative relationship between the measure of current ratio and profitability variable.

Muhammad & Haider (2011) have studied that impact of working Capital Management on firms' performance for non-financial institutions listed in Karachi Stock Exchange (KSE-30) Index in Pakistan. A panel data has been used in this study for 21 Kse-30 Index listed firms over a period for the year 2001 to 2010. The result indicated that there is a negative relationship between cash conversion cycle, account collection period and inventory conversion period with firm's performance but positive for liquidity. he concluded that managers can increase value of share holder and return on asset by reducing their inventory size, cash conversion cycle and account receivable. In other hand increase in liquidity will leads firms' over all performance.

Deloof (2003) studied that; does working capital management affect profitability Belgian firms? In his study, cash conversion used as comprehensive measure of working capital. He also used number of days account receivable, number of days of account payable and number of days of inventories as independent variable measuring in terms of gross operating income. Pearson coefficients and correlation analysis were used to determine the relationship between variables. He found that negative significant relation between gross operating income and account receivable, inventories and account payable but no significant relation with cash conversion. The researcher suggested that managers can maximizes their shareholders value by reducing the numbers of days account receivable and inventories to appropriate level. The negative relation between accounts payable and profitability is indicated that less profitable firms wait longer to pay their bills.

Afeef (2011) examined to determine the potential effect of working capital management on the profit performance of Small and Medium sized firms in Pakistan. He found that a negative relation for inventory conversion period and cash conversion period with return on asset. But revealed that an insignificant positive relation for current ratio.

Padachi (2006) studies trends in working capital management and its impact on firm's performance measured profitability in terms return on assets by using a secondary data taken from a sample of 58 Mauritian small manufacturing for the period 1998 – 2003. He revealed that high investment in inventories and receivables is associated with lower profitability. Therefore, the managers of firm's can increase profitability by reducing the number of day's conversion inventories and account receivable in to cash. He found that a negative significant relation account receivable with profitability. In the other hand, positive relation for cash conversion and inventories. In his final conclusion, a better and effective working capital management is anticipated to contribute positively to the creation of firm's value.

According to the study of Gill, Biger, & Mathur (2010) the relationship between working capital management and profitability; evidence from the United States. They found a positive relationship between a cash conversion cycle and gross operating profit, if firms that have higher cash conversion cycle will have larger profitability. But, they observed a negative relationship between average days of account receivable between profitability. In addition the finding indicated that slow collection of account receivables is correlated with low profitability. Regarding to this, managers can improve profitability by reducing the credit period granted to their customers. In contrary other researcher's, they didn't get statically significant relationship between gross operating and account payable.

Mathuva (2010) examined the influence of working capital management components on corporate profitability. A sample of 30 firms listed on the Nairobi Stock Exchange for the periods 1993 to 2008 was used. He founded that a negative relationship exist between account collection periods, cash conversion cycle and profitability. The finding showed that firm's can improve their profitability by speed up collection of outstanding receivables and making shorter cash conversion cycle by minimizing investment in current assets can help boosting profit. He argued that the significant positive and highly significant relationship existed between inventory conversion period as well as account payable with profitability. This significant relation implied that holding of high inventory levels keeps the firms from the costs arise from the possible interruptions in production process and price fluctuation and delaying payments to supplies so as to take advantage cash available for working capital needs.

Dong & Su, (2010), studies revealed that based on secondary data collected from listed firms in Vietnam market for the period of 2006 to 2008 with an attempt to investigate the relationship between profitability measured in terms of gross operating profit, cash

conversion cycle and its components for listed firms in Vietnam stock market. They found that negative significant relationship exist between number of days account receivable, number of days inventory conversion and cash conversion cycle with profitability; but significant positive relationship exist between account payment period and profitability. The researcher concluded that, the working capital management plays an important role for the success or failure of firms in business because of its effect on firm's profitability as well on liquidity. The cash conversion cycle increase, it will lead to declining of profitability. They conclude that managers can maximize their value of stakeholders by reducing the number of day's cash conversion cycle, number of days account receivable and number of inventories period to reasonable range.

Afza & Nazri (2011) studied on working capital management efficiency of cement sector Pakistan for the period from 19988-2008. Working capital management is highly important for firms to create further returns for stakeholders. They reported that working capital is less valuable if it has managed improperly. In addition investing on working capital more than the optimal level of resources reduces benefits of short term investments. On the other hand, working capital is too low, the company miss a lot profitable investment opportunities or suffer short term liquidity crises.

Ali and Syed (2012) studied working capital management, is really affects the profitability? The data were taken from 2003 to 2008 from balance sheet of 15 companies in Pakistan. They considered profitability as dependent variable whereas working capital and total assets are independent variables. Analysis found by using ordinary least square method, indicates a positive impact of working capital and total asset on profitability. They concluded that efficient management of working capital and having more total asset can lead firms to profitability. Therefore, the firms should improve their receivables and current assets components for sufficient working capital.

Eljelly (2004) examined that the relation between profitability and liquidity, as measured by current ratio and cash gap (cash conversion cycle) on sample of joint stock companies in Saudi Arabia. The study revealed that cash gap; current ratio and firm's size has significant negative relation with firm's profitability. The researcher concluded that a certain liquidity levels are desirable and sometimes unavoidable. However, unnecessary costs that borne by companies as the result of holding excessive liquidity.

Makori and Jangango (2013) analyzed the effect of working capital management on firm's profitability in Kenya for the period 2003 to 2012 on five manufacturing and construction firms which are listed on Nairobi Securities exchange were used. The researchers were taken return on asset a dependent variable to measure profitability and basic working capital components as independent variable. Pearson's correlation and ordinary least Squares regression models were used to for their data analysis. They found negative relationship between profitability and number of days, account receivable and cash conversion cycle, but a positive relationship between number of days of inventory and number of days of account payable. The management of firm can generate value for their shareholders by reducing the number of day's account receivable and cash conversion cycle to its minimum. They stated that the management also create value by increase their inventories to the appropriate level and can sustain an advantage by postponing payments to creditors.

Hassan et al., (2014) studied the effects of working capital management on firm performance: empirical studies of non-financial listed firms in Pakistan based on the data were taken from the annual reports during the period covered 2007-2010. Return on asset one of the dependent variables was used measure firm's performance. They found in their study average age of inventory and average collection period is positively related return on asset but Average payment period had insignificant association return on asset. The insignificant positive inventories association with return on asset may the increasing of sales which leads to higher profit but thus reduce the level of inventories. According to Hassan et al better management of receivables have a positive impact on firm's performance; moreover, it confirms the reduction of account receivables in turn positively affects the firm's profitability.

Mulualem (2011) examined that there is statistical significance negative relationship between profitability and working capital management in Ethiopia. He concluded that, companies managers can create profits by handling correctly cash conversion cycle and keeping working capital component at optimum level. The researcher also found a significant negative relationship between liquidity and profitability. More over the study found that a significant positive relationship between firms size and profitability.

Woubshet (2014) had studied on the impact of working capital management on firm's performance of 11 sample metal manufacturing private limited companies listed in Addis Ababa during time interval of 2008 to 2012. The results revealed that there is a significant negative association between account receivable periods, Inventory conversion period,

account payable period and cash conversion cycle with firm's performance measured by return on asset. finally he conclude that, taking longer time paying creditors , early collection of receivables from customers and maintaining sufficient inventory level by keeping product stock out less time are all associated with an increase in the firms performance.

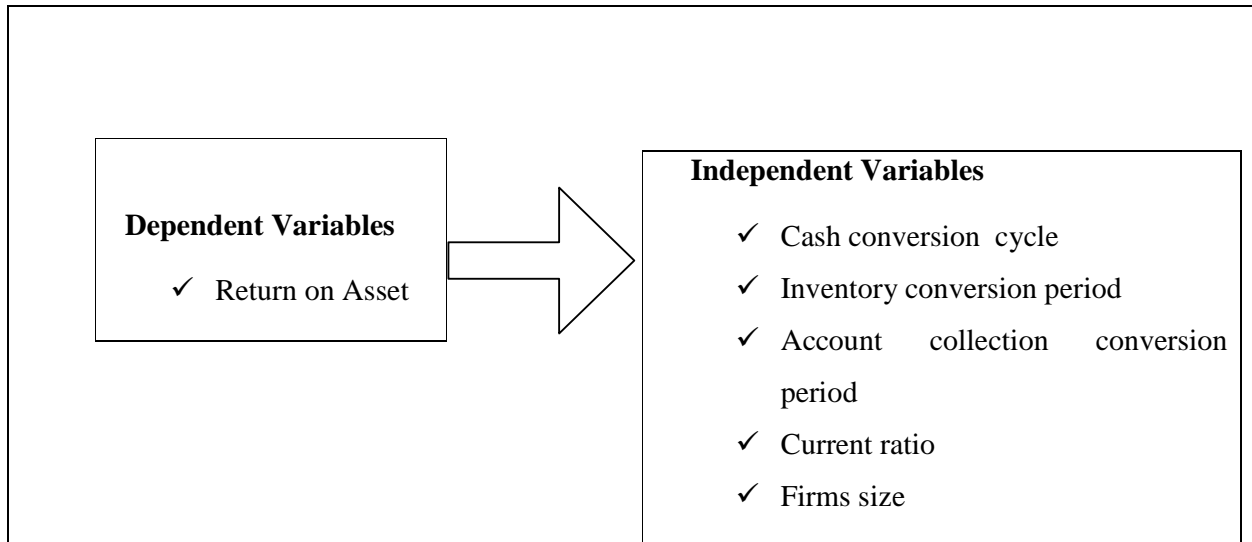
Mifta (2016) examined that the impacts of working capital management on profitability of manufacturing share companies in Ethiopia. During his study, He was measured firms performance in terms of return on asset which is a dependent variable and average collection period, average payable period and inventory conversion period and cash conversion cycle as an independent variable. The finding showed that a negative relationship between average collection period, inventory conversion period and cash conversion period with profitability. However, he found that a positive relationship between average payable period with profitability.

Niman (2015) studied on the impact of working capital management on firm's profitability evidence from selected manufacturing companies in Somali regional state, Ethiopia. In his study he has found that there is asignificant negative relationship between liquidity and profitability. The study also reveled that there is a negative relationship between firms size and profitability. In general he concluded that firms financial managers can create profit by improving working capital componet management at optimum level.

2.7. CONCEPTUAL FRAME WORK

Figure 1 below presents schematic conceptual framework of the relationship between working capital management measures and performance of firms. The variables were used in this study have been developed from the previous literatures.

Fig. 2.1 Conceptual frame work



Source: adopted from (Ntui, Kiemi, Gwatako, & Halim, 2014)

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2.8. SUMMARY OF LITRATURE REVIEW

Generally, the literature review indicated that working capital management has impacts on profitability, liquidity and performance of a firm. Even if different studies indicated that working capital management has impact on the profitability, liquidity and performance of firms but there is still vagueness regarding the appropriate variables, hypotheses and effect size measures that might serve as proxies for working capital management as a whole.

From the empirical studies, it could be depicted that working capital have impact on firms performance. For example, Padachi (2006) found out that a positive significant relationship between inventory conversion period, liquidity and profitability but negative account collection period. In other hand, Deloof (2003) found that there is a negative relationship between inventory conversion period, cash conversion period, account collection period and profitability. It is clear from the empirical evidence; there is no common result on the impact of working capital on profitability and all studies done in Ethiopia in the past only focused on the impacts working capital management on profitability other non printing firms. While, this study would focused on the large taxpayer printing firms and try to find out the impact of working capital management on its profitability and performance.

CHAPTER THREE

3.1 RESEARCH METHODOLOGY

The previous chapter discussion was focused on the theoretical and review of related literature works in relation to impact of working capital management on firms performance. This chapter tried to present the general research methodology of this study. In this section all relevant methodology techniques to conduct this research were discussed as follows. The discussion included: the research design, sampling method, description of study area, data collection tools, data analysis method, description of variables, i.e. dependent, independent and control variables, model specification and the final dissemination of the result of this study.

3.2 RESEARCH DESIGN

“Research design is the blue print for fulfilling the research objectives and answering the research questions”(John et al., 2007, 81). In research there are different research methods which can be used to address the research objectives. For this study, explanatory type of study based on a quantitative approach was used to analyses the collected data.

According to John et al., (2007) described quantitative research approach used in almost every sphere of life including sociological and business research. In addition, they explained that the method best approach for quantitative measurement which enables to conduct statistical analysis. This approach method had been applied by different previous researcher to determine the impact of working capital management on firm’s performance i.e. (Afeef, 2011; Gill et al., 2010; Wobshet, 2014; Makori & Jangango, 2013 and Mifta, 2016.

According to Gujarati (2004) the critical objectives of using correlation analysis is to measure the strength or degree linear association between the two variables. Correlation analysis has been used in this analysis to measure the relationship between firm’s performance and the of working capital components.

3.3 POPULATION

In this study, the target populations were large taxpayers printing firms which were categorized by Ethiopian revenues and customs authority (ERCA) has revised the entry point into the large taxpayer category to start from companies who have an annual sales turnover greater than birr 27 million.

3.4 RESEARCH SAMPLE SELECTION

The sample size was determined by using purposive sampling method which is a non-probability sampling procedure that helped us to conduct this study. According to ERCA, only nine printing firms categorized under large taxpayer companies list. Therefore the whole populations of large taxpayer printing firms were included in this study. The data used for this study are collected from the period 08 July 2011 to 07 July 2015 financial records from large taxpayer printing firms found in Addis Ababa, Ethiopia. .

3.5 STUDY AREA

For conducting this research Addis Ababa was selected purposively as a study area, because Addis Ababa is the commercial capital city of Ethiopia and the selected large taxpayers printing firms head offices are located only in Addis Ababa as well.

3.6 DATA COLLECTION TOOLS

Secondary data was the primary source of information to conduct this research study. The printing firm's that are listed in for this study were required to have financial statements on regular basis. The financial statements are the source of all information that was used in this study. The necessary data of income statements & statement of balance sheet over a period of five consecutive years from the period 08 July 2011 to 07 July 2015 were gathered from Ethiopian Revenue & Customs Authority large taxpayer branch office.

3.7 DESCRIPTIVE ANALYSIS

In this study two types of data analysis were used such as; descriptive and quantitative. Descriptive analysis was the first step in this study to present the output in terms of maximum, mean, minimum and standard deviation of the variables considered in this study. As stated above in the research design part to properly apply the quantitative analysis; multiple regressions and Pearson's coefficient correlation were used. In addition, E-view software version 9 and Excel software were used for processing and converting the raw data in to meaning full information for this study.

3.7.1 DESCRIPTION OF VARIABLES

This study has identified significant variables that influence working capital management. The variables were categorized in to three sections to examine the impact of working capital management on firms' performance such as; dependent variable (ROA), independent variable, Cash conversion cycle (CCC), Inventory conversion period (ICP),

Account collection period (ACP), Current ratio (CR) & Firms size. Therefore, the detail of each variable has been discussed below.

3.7.2 DEPENDENT VARIABLES

Dependent Variable is a variable that is dependent on independent variables. Return on assets (ROA) is used as dependent variable to measure the relationship of working capital management firm's performance. It is designed to determine how the management is employing the company total assets to make profit and the management effectiveness in utilizing its asset. They will be calculated by establishing relationships between profit figures on the one hand, and income or assets on the other hand. The term profitability is measured in different ways by the researcher. In this study, firm's performance will be measured in terms of Return on Asset (ROA).

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income(NI)}}{\text{Total Asset(TA)}}$$

3.7.3 INDEPENDENT VARIABLES

Independent or predictor variable is variable that is being manipulated in order to observe the effect on the dependent variable. To determine its effect on return on asset outcome; working capital management components considered as independent variables to measure the relationship of working capital management on firm's performance on large taxpayer printing firms such as, cash conversion cycle, average collection Period, inventory conversion period (ICP), current ratio and firms size. The detail of each independent variable is discussed in the literature part but for simplicity the terminology is discussed below.

- Cash conversion cycle is the comprehensive independent variables to measure the cash collection policy of firms. It is computed by the summation of the time taken inventory conversion and account collection period minus account payment period to suppliers.
- Inventory conversion period measures the number of times, on average, the inventory sold during the period.

$$\text{Inventory conversion period} = \frac{(\text{Inventory} \times 365)}{\text{Cost of Goods Sold}}$$

- Average Collection Period (ACP) is an independent variable used as measurement for the Collection Policy.

$$\text{Account collection period} = \frac{\text{Account receivable} \times 365}{\text{Net sales}}$$

- Liquidity is one of independent variable which affects profitability of firms.

$$\text{Current Ratio (CUR)} = \frac{\text{Current Asset (CA)}}{\text{Current Liabilities (CL)}}$$

Firm Size

The size of firm's has in a straight line effects working capital requirement. A firm's larger scale of operations will need more working capital. In the review of Chiou et al., (2006) make obvious that the working capital necessity has significantly affects on size of firms (as cited in Hassan et al., 2014, 121).

In general firm's size affects profitability; therefore to firm's size included as an independent variable in this study. The researcher was used natural logarithm of firm's total assets to determine the size of large taxpayer printing firms.

$$\text{Firm's Size} = \text{Natural logarithm of firm's Total Assets}$$

3.7.4 MODEL SPECIFICATION

The impact of working capital management on firms' performance was estimated by using similar quantitative models of (Amjad et al., 2010; Mifta, 2016; Phuong and Su., 2010; Makori & Jagongo, 2013).

The General Formula for the model will be:

$$ROA_{it} = B_0 + \sum_{t=1}^n B_i X_{it} + \epsilon$$

ROA_{it}; Return on assets of a firm i at time t; i=1, 2, 3,.....

B₀ = the intercept of the equation

B_i = Coefficients of X_{it} variables

X_{it} = the different independent variables of working capital management of firms i at time t.

t = time from 1,2,.....5 years

ε = error term

This model is used to test the hypothesis;

$$ROA_{it} = B_0 + B_1 (CCC_{it}) + B_2 (ICP_{it}) + B_3 (ACP_{it}) + B_4 (CUR_{it}) + B_5 (LnTA_{it})$$

3.8 DATA ANALYSIS

First, this study necessary financial data of large taxpayers printing firms were collected from Ethiopian Revenues and Customs Authority (ERCA) branch office. After that, collected data was rearranged, edited and calculated in order to generate complete data needed to conclude in this study. Next, these collected data are analyzed by using E-views. The last step was interpreting the result of E-view version 9's output.

3.8.1 Diagnostic Analysis

Diagnostic test is conducted to examine whether the sample is consistent with following assumptions:

- 1) The model is correctly specified
- 2) There is no relationship between independent variables (No multicollinearity).
- 3) There is no relationship among the error term at the period t and the error term at period before t (No Serial correlation problem)
- 4) The error term is constant across the number of observations (Homoscedasticity).
- 5) The error term is normally distributed.

If all the above assumptions are consistent with the sample, E-view result will be accurate and reliable.

3.8.2 Model Selection Criteria (Random vs. Fixed effect model)

In panel data one of the challenges facing a researcher is to decide which model is better, Fixed Effect Model (FEM) or Random Effect Model (REM)? To answer this question one makes about the likely correlation between the individual or cross-section specific, error component and the X 's regressors. IF it is assumed that the disturbance term (ϵ_i) and the X 's regressors are uncorrelated, REM is appropriate. If the disturbance term (ϵ_i) and X 's are correlated, FEM is appropriate (Gujarati, 2004).

Therefore, the researcher applied Hausman test to determine which model is suitable for the given data. This test helps to know whether the unobservable heterogeneity term is correlated with explanatory variables or not. The null hypothesis for this test is that unobservable heterogeneity term is not correlated or random effect model is appropriate, with the independent variables. If the null hypothesis is rejected then we employ fixed effects method (Padachi, 2006).

H₀: Random Effects model is appropriate

H₁: Fixed Effects model is appropriate

Decision Rule: Reject H₀ if p-value less than significance level 5%. Otherwise, do not reject.

Table 3.1 Test for Model selection

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.223721	5	0.0471

Based on the Hausman test result above table 3.1, the p-value is significant at 5% level, therefore, we can reject the null hypothesis which states Random effect model is appropriate. The final estimation model used fixed in this study is fixed effect model.

3.8.3 Testing for Normality

Normality is a condition in which the variables to be used in the model follow the standard normal distribution. If the series are normally distributed, the histogram should be bell shaped and the Jarque- Bera statistic insignificant. It thus follows that series will be normally distributed at 5% level of significance if the probability of Jarque-Bera statistic is greater than 0.05.

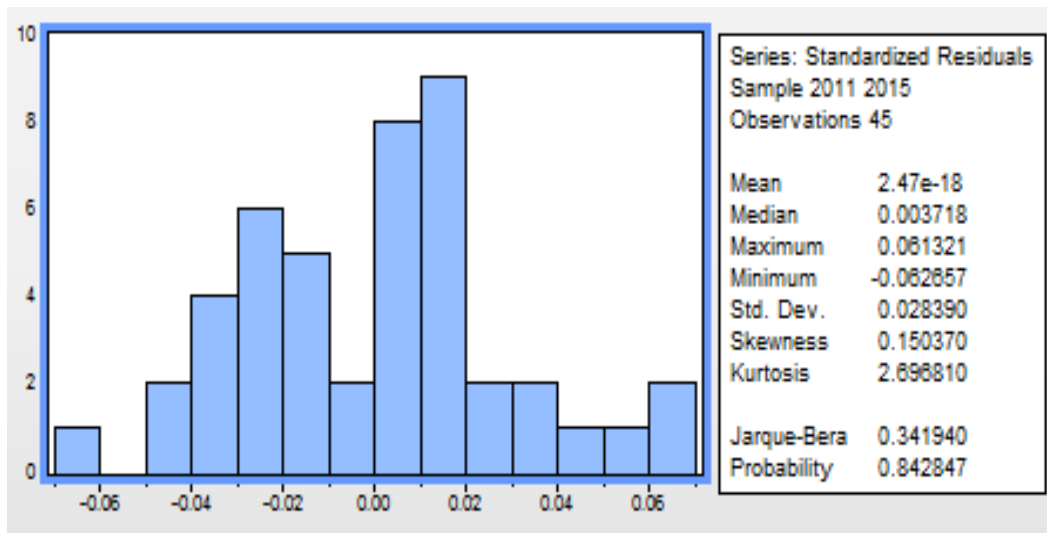
The hypothesis test of normality was formulated here below.

H₀: The series is normally distributed

H₁: The series is not normally distributed

Decision rule: Reject H₀ if p-value of JB is less than significant level 0.05.

Fig. 3.1 Normality Test



Source-Eview histogram normality test result

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

3.8.4 Serial correlation Test

According to Brooks (2008) when the error term for any observation is related to the error term of other observation, it indicate that autocorrelation problem exist in this model. In the case of autocorrelation problem, the estimated parameters can still remain unbiased and consistent. The result of T-test, F-test or confidence interval become invalid due to variances of estimators tends to be under estimated or over estimated. To detect autocorrelation problem Breusch-Godfrey Serial LM Test was used.

H_0 : No serial correlation

H_1 : Presence of Serial correlation

Decision rule: Reject H_0 , if P-value less than significance level. Otherwise, do not reject H_0 .

Table 3.2 Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.501172	Prob. F(2,37)	0.2361
Obs*R-squared	3.377438	Prob. Chi-Square(2)	0.1848

As shown in the above table 3.2, the F-test and the P-value of F-statistic result of the model were 0.2361, which is greater than the significance level of 5%. Therefore, we cannot reject the null hypothesis which states residuals are not serially correlated failed to reject at 5% of significance. The chi-square P-value of the models also supports the absence of serial correlation in the model. Hence the models in this study have no serial correlation.

3.8.5 Heteroskedasticity

It has been assumed that the variance of the errors is constant; this is known as the assumption of homoscedasticity. If the errors do have a not constant variance, they are said to be heteroskedastic. The presence of heteroskedasticity makes ordinary least square estimators not efficient because the estimated variances and covariance of the coefficients are biased and inconsistent (Chris, 2008). There are many methods used to test the existence of heteroskedasticity, in this study the researcher used Breusch-pagan-Godfrey test.

Ho: The model is Heteroskedastic

H1: The model is Homoskedastic

Decision rule: Reject Ho if the p-value greater than the significance level. Otherwise do not reject the null hypothesis.

Table 3.3 Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.374058	Prob. F(5,39)	0.2551
Obs*R-squared	6.739940	Prob. Chi-Square(5)	0.2407
Scaled explained SS	3.325404	Prob. Chi-Square(5)	0.6500

Both the test of F-statistic and chi-square above table 3.3 revealed the absence of heteroskedasticity since the p-value is more than 5% significant level.

3.8.6 Multicollinearity Test

Multicollinearity means that there is linear relationship between explanatory variables which may cause the regression model biased (Gujarati, 2004).

In any practical context, the correlation between explanatory variables is non-zero; although this will generally be relatively begin the sense that a small degree association between explanatory variables will almost always occur but not will cause too much loss of precision. He stated that the most important concern is that as the degree of multicollinearity increases, the regression model estimates of the coefficients become unsteady and the standard errors for the coefficients can get uncontrollably inflated (Chris, 2008).

Hailer et al., (2006) argued that multicollinearity problem exists when the correlation coefficient among the independent variables in the study are greater than 0.9.

Table 3.4 Multicollinearity Test

	CCC	IHP	ACP	CUR	FIRMSIZE
CCC	1.000000	0.804923	0.696276	0.212483	0.261616
IHP	0.804923	1.000000	0.358663	0.023543	0.284031
ACP	0.696276	0.358663	1.000000	0.310540	0.128681
CUR	0.212483	0.023543	0.310540	1.000000	-0.279206
FIRMSIZE	0.261616	0.284031	0.128681	-0.279206	1.000000

From the result above table 3.4, indicated that the correlation coefficient less than 0.90. Therefore, no problem of multicollinearity existed.

CHAPTER FOUR

4.1. RESULTS AND DISCUSSION

This chapter presented and discussed the empirical results on the impact of working capital management on firm's performance. The study presented on descriptive analysis and quantitative analysis based on the secondary data statistical output. The first presentation of descriptive statistics which shows the relevant output of variables such as, mean, maximum, minimum and standard deviation of variables used in the study were presented. The second the quantitative analysis focused to diagnosis the relationship between the dependent and independent variables considered in this study.

4.2 DESCRIPTIVE ANALYSIS RESULT

This section presented the descriptive statistics of the time series data of all firms included in this study. The table below gives the mean, minimum, maximum and the standard deviation of each variable in the study. The descriptive analyses were presented for large taxpayer printing firms based on the annual financial data for the period of 2011 to 2015. The discussion included dependent, independent and control variables used to determine the impact of working capital management on firm's performance.

Table 4.1 Descriptive Statistics

	ROA	CCC	IHP	ACP	CUR	FIRMSIZE
Mean	0.179021	269.4199	232.9897	60.58768	6.559546	18.22551
Median	0.149737	220.4863	201.0417	36.84312	4.930512	18.05366
Maximum	0.389941	638.9056	494.9232	194.5218	19.17111	20.03595
Minimum	0.035711	56.51934	45.45141	2.640837	1.578277	16.90560
Std. Dev.	0.086770	155.6910	125.4558	57.61920	4.685250	0.713823

Source: Eview Output from Secondary Data (2011 – 2015)

As it indicated in table 4.1 above, the mean value of large taxpayer printing firms return on asset is 17.9 % of total assets. The minimum and maximum value of firm's return on asset has 3.57% & 38.99% of total assets respectively. The standard deviation indicated that the value profitability can deviate by 8.67% from its mean. The cash conversion cycle used as an

alternative to check the efficiency in managing working capital is on average 269.42 days. The minimum time taken by firms to convert its overall activity in to cash has 56.52 days and the maximum time taken by the firms for conversion all activity in to cash has 638.91 days. The descriptive result point out firms spent an average 232.98 days to convert their inventory to cost of production. The maximum and minimum time taken to convert its inventory has 494.92 days and 45.45 days respectively. The result revealed that the time taken to collect their receivables an average 60.58 days. Minimum time taken by firms to collect cash from receivables has 2.64 days while the maximum time taken for collection is 194.52 days.

Liquidity is one of the factors which affect firm's performance. In order to determine the liquidity of the firms, current ratio is considered as an independent variable. The mean value of current ratio for the large taxpayer printing firms has 6.55 times current liabilities. The highest current ratio for a firm in a particular year is 19.17 times and similarly the minimum ratio in a year has 1.58 times of its current liabilities.

From the table 4.1 the average firm size of firms is 18.225 measured by natural logarithms of its total asset. The maximum and minimum the value of log of total asset are 20.04 and 16.90 respectively.

4.4 REGRESSION ANALYSIS RESULTS

This section presents the empirical findings from the eview statistical results on the factors affecting large taxpayer printing firm's profitability in Ethiopia. The R2 value indicates the explanatory power of the model to explain dependent variables. The P-value indicates that at significance of the independent variables.

Adjusted R-square lies between 0 and 1 and also put a rough guide line as rule of thumb which can be used to see the adjust R2 value how well our model fits the data. The interval put as a guide lines are: < 0.1: poor fit, 0.11 to 0.30: modest fit, 0.31 to 0.50: moderate fit, >0.50: strong fit (Daniel, 2004).

The primary objective of data mining is to develop the best model after several diagnostic tests so that the model finally chosen is a good model in the sense that all the estimated coefficients have the right signs, they are statistically significant on the basis of F tests, the R2 value is reasonably high and the Durbin-Watson (*d*) has acceptable value around 2 (Gujarati, 2004).

Table 4.2
Regression
Result

Dependent Variable: ROA Method: Panel Least Squares Date: 11/26/17 Time: 16:46 Sample: 2011 2015 Periods included: 5 Cross-sections included: 9 Total panel (balanced) observations: 45				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.518188	0.450692	1.149762	0.2590
CCC	0.000789	0.000352	2.240908	0.0323
IHP	-0.000876	0.000345	-2.542624	0.0162
ACP	-0.001399	0.000463	-3.023745	0.0050
CUR	-0.005263	0.002040	-2.579301	0.0149
FIRMSIZE	-0.012522	0.024909	-0.502713	0.6187
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.892948	Mean dependent var	0.179021	
Adjusted R-squared	0.848056	S.D. dependent var	0.086770	
S.E. of regression	0.033823	Akaike info criterion	-3.685807	
Sum squared resid	0.035464	Schwarz criterion	-3.123734	
Log likelihood	96.93066	Hannan-Quinn criter.	-3.476272	
F-statistic	19.89078	Durbin-Watson stat	1.983345	
Prob(F-statistic)	0.000000			

Source: Eview version 9 result

From the above table 4.2, the regression result of fixed effect model indicated that the coefficient of determination of R-squared and Adjusted R-square were 89% and 85% respectively. The result indicated that 85% of the Change in return on asset of large taxpayer printing firms are successfully explained by the selected firm's specific independent variables (cash conversion cycle, inventory conversion period, account collection period, current ratio and firms size). Where as the remaining 15% changes in return on asset used to measure profitability of such firm's are caused by other variables which were not included in the model. This result indicated that the variables included in the model were strong to explained the dependent variables.

The coefficient of cash conversion cycle with return on asset is 0.0008 at p-value is 0.03, which implies that one day increasing in cash conversion period will increase firm's profitability by 0.0008%. The coefficient of inventory conversion period with return on asset is -0.0009 at p-value is 0.02, which implies that one day increasing in inventory conversion period will decrease firm's profitability by 0.0009%. The coefficient of account collection period with return on asset is -0.0014 at p-value is 0.005, which implies that one day increasing in account collection period will decrease firm's profitability by 0.0014%. The coefficient of liquidity measured by current ratio with return on asset is -0.005 at p-value is 0.015, which implies that one day increasing in account collection period will decrease firm's profitability by 0.0014%.

The F-test which used measure the model specification indicated that the model is fit with F-value 19.89 at significance p-value 0.00. In addition the observed DW test result revealed 1.983 which is approximately 2.00. Therefore, there is no auto correlation in regression result.

4.5. DISCUSSION

After we diagnosed the statistical analysis, the topic following this analysis is the empirical data was interpreted and discussed by comparing the finding with the theory and evidence from previous empirical studies.

4.5.1 The Relationship between Cash Conversion Cycle and Profitability

The result found from the regression analysis table 4.2 observed that there was positive significant relationship between cash conversion cycle and firms profitability measured by return on asset. The finding is similar with the previous studies (Gill, Biger, & Mathur, 2010; Padachi, 2006). However, the regression result is in contrary the studies of ((Deloof, 2003; Dong & Su, 2010; Wobshet, 2014; Makori & Jagongo, 2013 and Mifta, 2016) found strong negative relationship cash conversion cycle and profitability of firms which might be due to the result of sampling or model difference.

The finding confirmed that when cash conversion cycle increase profitability of large taxpayer printing firms also increase. The positive relationship between profits and cash conversion cycle could be explained by the nature of firms and higher profitability due to the market dominance. The positive relationship between the firm's cash conversion cycle and profitability which measured in terms of return on asset might also be explained by the fact that maximizing the investment in current assets can help in boosting profits.

4.5.2 The Relationship between Inventory Conversion Period and Profitability

The regression model result above table 4.2 revealed that, inventory conversion period and return on asset has a significant negative relationship at p-value 5%. This result is consistent with the previous studies (Deloof, 2003; Muhammad & Haider, 2011; Dong & Su, 2010 and Mifta, 2016; Wobshet, 2014). In contrary the studies of (Mathuva, 2010; Makori & Jagongo, 2013; Padachi, 2006 and Hassan et al., 2014) which found strong positive relationship between inventory conversion period and profitability.

The negative relationship between inventory conversion period and profitability implies that increasing of inventory conversion period leads to drop of firm's profitability. This finding is consistent with view, that holding high inventories will incur costs to firm because the funds which are tied up in inventories cannot generate interest earnings. In other hand, if firms have held excess level of stock more than necessary for the purpose of production or to be sold leads to charge unnecessary significant costs associated with the holding of excess inventories. These costs include; Storage and handling costs; financing costs; the cost of

pilferage and obsolescence and the cost of opportunities forgone in tying up funds in the form of assets. In contrary to the level of inventories held is too low will exposed loss of sales; loss of good will from customers; high transport cost incurred to replenish quickly and purchasing at higher price. Firms have large inventories as composed of raw materials and finished goods and therefore, there is an interested to sell goods produced quickly so as to make profits.

Therefore, large taxpayer printing firms are obligated to establish efficient inventory management systems able to manage their inventories (raw material, work in process and finished goods) effectively which result in high inventory balance and long inventory period. If management try to minimize the period taken to convert their inventories, firms will able to create value and maximizes its profitability.

In general, this finding can be interpreted that if the inventory conversion period takes more time to convert production, it will adversely affect profitability.

4.5.3 The Relationship between Account Conversion Period and Profitability

The regression model result above table 4.2 indicated that relationship between account collection period and profitability measured by return on asset has a significant negative relationship at p-value 5%. This result is consistent with the previous studies (Deloof, 2003; Muhammad & Haider, 2011; Dong & Su, 2010; Mifta, 2016 and Wobshet, 2014). In other hand, the result is not consistent with the studies of (Mathuva, 2010; Makori & Jagongo, 2013 and Hassan et al., 2014) which found positive relationship between account collection period and profitability.

The result also suggested that an increase in number of account collection period from sales affects negatively the profitability of firms. In other hand, decreasing the number of account collection period by one day is associated the increase of firm's profitability. It also interpreted the amount of account collection period to much delay has leads to a chance of opportunity cost and bad debt hence the profitability of firms will be affected in the long run.

The finding confirms within the line of working capital management rule that large printing firms must strive to collect their debts from debtors as quickly as possible. The firms account collection period increase bad debt will increase and profitability may fall down. This means that the shorter the firm's average collection period, the higher will be firm's profitability and the longer average collection period going to earn lower profitability. These findings are in line with working capital management rule that firms should strive to collect their debts from

debtors as quickly as possible. However, early collection is necessary for firms in order to get available funds and increase their profit.

4.5.4 The Relationship between Liquidity and Profitability

The regression model result above table 4.2 indicated that relationship between liquidity and profitability measured by return on asset has a significant negative relationship at p-value 5%. This result is consistent with the previous studies (Eljelly, 2004; Niman, 2015; Muluaem, 2011; Woubeshet, 2014 and Mifta, 2016). In other hand, the result is not consistent with the studies of (Mathuva, 2010; Makori & Jagongo, 2013; Padachi, 2006 and Hassan et al., 2014) who found positive relationship between liquidity and profitability.

The result suggested that an increase in liquidity affects negatively the profitability of firms. In other hand, decreasing the excessive of current assets large taxpayer printing firms will associate the increase of firm's profitability. The researcher concluded that a certain liquidity levels are desirable and sometimes unavoidable. However, unnecessary costs which tying up funds, interest expense and storage cost for handling of inventories and so on that borne by companies as the result of holding excessive liquidity.

4.5.5 The Relationship between Firm Size and Profitability

The regression model result above table 4.2 indicated that relationship between the size of firm and profitability measured by return on asset is negative but insignificant at p-value 5%. This result is consistent with the previous studies (Manoori & Muhammed, 2012 and Hassan et al., 2014). In contrary, the finding is not consistent with the studies (Mahdi et al., 2014; Mathuva, 2010 and Woubeshet, 2014) Who found a positive relationship between firms size and profitability.

The insignificant regression result of firm size indicated that it does not affect large tax payer printing firms profitability. Therefore, on the hypothesis that stated there is a significant positive relationship between firms size and profitability did not support by the regression output.

CHAPTER FIVE

5. CONCLUSIONS AND RECOMMENDATIONS

The fundamental purpose of this chapter is for concluding the major findings of the analysis, setting recommendation and put suggestion for future research about the topic.

5.1 Conclusion

The management of working capital is one of the most important factor in financial decisions of a firms. Sufficient level of working capital should be present for smooth running of a firms operating activity regardless of the nature of business.

This study has measured working capital management independent variables i.e. (cash conversion cycle, inventory conversion period, account receivable collection period, current ratio and the size of firm). Based on the descriptive analysis, the large taxpayer printing firms mean value of return on asset was 17.90 % out of the total assets. The cash conversion cycle was used as an alternative variable to check the efficiency in managing working capital management is taking an average 269.42 days. Firms have taken on average 232.98 days to convert their inventory to cost of production. It needs average 60.58 days to collect their receivables from sales. The descriptive result has also shown that, firms current ratio was an average 6.56 times to its current liabilities. In agreement with the hypothesis of this study, the finding of this study has proved that the impacts of working capital management on firm's performance: the cases of large taxpayer printing firms in Ethiopia were true except size of firm which was insignificant at alpha 5%. But, it was statistically significant.

The statistical regression analysis of this study has shown that working capital management component variable like cash conversion cycle, inventory conversion period and account collection period have significant and negative relationship with profitability measured by return on asset. The result suggests that decreasing the excessive of current assets large taxpayer printing firms will associate the increase of firm's profitability because unnecessary costs that bear by companies as the result of holding excessive liquidity. In other hand, firm size has insignificant negative relationship with profitability.

In general, the study concluded that there was strong relationship between working capital components and firms profitability. This can be interpreted that effective working capital management has a significant impact on the performance of large taxpayer printing firms.

5.2 Recommendations

Based on the problems identified by this study, the following recommendations can be forwarded to managers and top level management body of large taxpayers printing firms.

- This study indicated that there was negative and significant relationship between inventory conversion period and firms performance. It is obvious that higher inventory holding period is associated with higher storage, carrying cost and also prone to stock spoilage. The previous empirical and theoretical studies concerned minimizing inventory conversion period will result in efficient outcome of firm's performance. The researcher recommended the firms should ensure the inventory management system that minimizes the inventory holding period.
- The result of this study has indicated that an increase account collection period negatively affects firm's profitability. Because of that receivables management has cash discount cost for encouraging customers, lost purchasing power, costs of assessing customer creditworthiness, administration cost and bad debts. Therefore, large taxpayer printing firms should have a good credit standards, terms, collection effort and develop a clear comprehensive policy concerning selling goods on credit and the way to speed up the collection procedures of uncollected receivables.
- Managers should try to balance liquidity and profitability to avoid unnecessary cost (financing cost, administrative cost and loss of available funds to reinvestment) incurred due to excessive current assets.

5.3. Suggestions for Further Research

This research had been done by considering a single dependent variable. The literature from previous researches, researcher believed that it will better to study by including one or more dependent variable which used to measure the profitability of firms' i.e. gross operating profits, return on investment and return on equity.

APPENDIX

Converted Raw financial statements data of large taxpayer printing firm's

Code	YEAR	ROA	CCC	IHP	ACP	Cur	Firm size
10,096	2011	0.11	225.73	308.47	13.20	2.69	18.05
10,096	2012	0.19	210.03	290.70	3.17	2.27	18.08
10,096	2013	0.19	212.43	321.98	5.71	2.20	18.05
10,096	2014	0.16	193.36	281.47	16.04	1.96	18.05
10,096	2015	0.11	267.64	314.97	19.48	1.68	18.14
10,297	2011	0.22	536.74	419.46	137.94	4.13	17.80
10,297	2012	0.13	630.61	494.92	152.30	6.40	18.10
10,297	2013	0.13	638.91	486.55	167.76	10.00	18.14
10,297	2014	0.09	626.91	467.85	172.53	7.65	18.42
10,297	2015	0.13	623.57	444.02	194.52	7.08	18.45
10,653	2011	0.14	192.17	184.21	18.93	10.80	17.29
10,653	2012	0.15	202.53	188.75	19.17	15.06	17.68
10,653	2013	0.14	189.81	200.35	5.44	9.47	17.84
10,653	2014	0.10	142.85	133.06	22.14	8.37	17.88
10,653	2015	0.13	192.39	223.49	4.73	4.84	17.98
11,018	2011	0.31	104.99	75.72	30.25	5.78	17.52
11,018	2012	0.28	101.79	72.26	31.30	1.95	17.49
11,018	2013	0.27	169.22	69.11	103.60	3.67	17.74
11,018	2014	0.14	253.58	64.98	193.46	15.54	18.04
11,018	2015	0.13	208.35	58.80	153.29	16.93	17.94
11,020	2011	0.12	288.70	256.11	34.74	19.17	17.93

11,020	2012	0.09	360.93	314.91	49.31	15.38	17.90
11,020	2013	0.08	506.59	429.99	81.53	13.49	18.19
11,020	2014	0.10	472.81	378.86	99.54	7.77	18.25
11,020	2015	0.04	399.05	323.57	88.45	15.61	18.29
11,036	2011	0.22	214.74	164.48	69.89	4.93	17.81
11,036	2012	0.20	164.65	196.72	20.49	2.64	17.97
11,036	2013	0.26	244.88	262.04	20.84	3.62	18.35
11,036	2014	0.28	221.64	213.98	16.35	1.58	18.40
11,036	2015	0.22	225.92	176.79	57.64	2.53	18.70
11,037	2011	0.34	316.52	284.85	39.69	3.21	19.65
11,037	2012	0.34	218.09	193.87	27.03	3.27	19.74
11,037	2013	0.36	220.49	186.31	36.84	2.59	19.79
11,037	2014	0.32	362.00	323.50	40.85	3.66	19.98
11,037	2015	0.39	358.39	343.39	37.53	2.57	20.04
13,141	2011	0.10	155.40	198.29	76.73	5.77	19.13
13,141	2012	0.21	275.19	201.04	103.58	4.06	18.53
13,141	2013	0.19	300.76	204.46	137.44	3.99	18.59
13,141	2014	0.21	244.80	161.36	111.19	5.08	18.54
13,141	2015	0.20	186.75	132.85	72.34	6.98	18.71
606,930,001	2011	0.08	170.98	169.98	4.80	5.74	16.91
606,930,001	2012	0.06	96.30	98.94	2.64	6.71	17.26
606,930,001	2013	0.11	78.22	75.03	4.75	7.68	17.45
606,930,001	2014	0.12	56.52	46.66	12.17	4.56	17.60
606,930,001	2015	0.17	59.97	45.45	15.11	4.08	17.75

Source: ERCA

4. REFERENCES

- Abuzayed, B. (2012). Working Capital Management & Firms' Performance in Emerging Markets: The Case of Jordan. *International Journal of Finance*, Vol.8, ISS.2 , 155-179.
- Afande, D. O. (2015). Relationship Between Working Capital Management and Profitability of Cement Companies in Kenya. *Research Journal of Finance and Accounting*, Vol.6, No.7 , 158.
- Afeef, M. (2011). Analyzing the Impact of Working Capital Management on the Profitability of SME's in Pakistan. *International Journal of Business & Social Science*, Vol.2 No.22 .
- Afza, T., & Nazri, M. S. (2011). Working capital Management Efficiency of cement Sector of Pakistan. *Journal of Economics & Behavioral Studies*, vol.2 , No.5 , 223-235.
- Ali, A., & Syed, A. A. (2012). Working Capital Management ; Is It Really Affects the Profitability? Evidence from Pakistan. *Global Journal of Management & Business Research*, Vol.12 , Issu-17 .
- Atrill, P., & McLaney, E. (2006). *Accounting & Finance for Non Specialists* (Vol. 5th Edition). Pearson Education Limited.
- Baker, H. K., & Powell, G. E. (2005). *Understanding of Financial Management* . Garisington Road, UK: Black Well publishing Ltd.
- Brealey, R., & Myers, S. (2003). *Principle of Corporate Finance, 7th edition* . Nework: MCGraw Hill.
- Brigham, F., & Houston, F. (2003). *Fundamentals of Finanacial Managment, 10th edition*. Nework: McGraw-Hill.
- Chris, B. (2008). *Introductory Econometrics for Finance*. Nework: United States of America by Cambridge University.
- Daniel, M. (2004). *Doing Quantitative Research in Education with SPSS*. London: Sage Publication Ltd.
- Deloof, M. (2003). Does Working Capital Management Affect Profitability of Belegian firms? *Journal of Business & Accounting*, 30(3) , Issu.4 .
- Dong, H. P., & Su, J.-t. (2010). The Relationship Between Working Capital Management & Profitability: A Vietinam Case. *International Journal of Finance & Economics*, ISSN 1450-2887, Issu-49(2010) .
- Egbide, B.-c. (2009). Working capital mangment & Profitability of Listed Companies in Nigeria. *Nigerian Journal of Accountancy*, vol.1(1) , 44-45.

- Eljelly, A. M. (2004). Liquidity- Profitability Trade off:An Emperical investigation in Emerging Markets. *International Journal of Commerce and Management, Vol. 14, No.2* .
- Filbeck, G. a. (2005). "Analysis of Working Capital Managment Result Across Industries Mid-American." *Journal of Business, 20(2),11-18* .
- Gill, A., Biger, N., & Mathur, N. (2010). The Relationship Between Working Capital Management & Profitability Evidences From the United States. *Business and Economics Journal, Vol.2010, BEJ-10* .
- Gujarati, D. N. (2004). *Basic Econometrics,4th edition*. MC Graw Hill companies.
- Hassan, N. U., Imran, M. M., Amjad, M., & Hussian, M. (2014). Effects of Working Capital Management on Firms' Performance:An Emperical Study of Non-Financial Listed Firms in Pakistan. *International Journal of Academic in Business & Social Sciences, Vol.4, No.6* .
- Hoang, T. V. (2015). Impact of Working Capital on Firms Profitability:The Case of Listed Manufacturing firms on Hochi Minh Stock Exchange. *Asian Economic & Financial Review,DOI:10.18488/journalaefr/2015.5.5/102.5.779.789* , 1.
- Horngren, C. T., Oliver, M. S., & Harrison, W. T. (2012). *Financial & Managerial Accounting*. United states of America: Pearson Prentice Hall.
- Igor, S., & Suzana. L. (2016). The Impact of Working Capital Policy on Firms Performance and Capital Requirments. *Managemenet of International Confrence* , 365.
- Ibrahim, N. (2015). *The Impact of Working Capital Management on Firm's Profitability; Evidence from Selected Manufacturing Companies in Somali Regional State, Ethiopia*.
International Standard Industrial Classification of All Economic Activities. Rev.4. New york: United Nation, 365
- John. A., Khan, H. T., R. R., & W. D. (2007). *Research Methods for Graduate Business and Social Science Students*. Delhi: Vivek Mehra Response for Books.
- Mifta A. (2016). The Impact of Working Capital Managment on Profitability of Manufacturing Share Companies in Ethiopia. Addis Ababa, Ethiopia.
- Muhammad A., & Haider, S. I. (2011). Impact of Working Capital Management on Firm's Performance:Evidence from Non Financial Institution of KSE- Index. *Interdisciplinary Journal of Contemporary Research in Business,vol.3, No.5* .
- M. G., M. S., B. S., & N. S. (2014). Assessing the Relationship Between Firm Size, Age and Financial Performancein Listed Companies on Tehran Stock Exchange. *International Journal Scientific Management and Development. Vol.2(11)* .

- Mulalem, M. (2011). *The Impact of working Capital management on Firms's Profitability*. Addis Ababa.
- Makori, D. M., & Jagongo, A. (2013). Working Capital Management Firms Profitability:Emperical Evidence from Manufacturing & Construction Firms Listed on Nairobi Securities Exchange, Kenya. *International Jornal of Accounting & Taxation, Vol.1 No.1* .
- Manoori, E., & Muhammed, D. (2012). Determinants of Working Capital Management: The Case of Singapore Firms. *Research Journal of Finance and Accounting, Vol.3, No.11* .
- Mathuva, D. M. (2010). The influnce of Working Capital Management Componenets Corporate Profitability: A Survey on Kenyan Listed Firms. *Research Journal of Business Managment, 4(1): 1-11* .
- Niman, I. (2015). *The impact of Working Capital on Firm's Profitability: Evidence from Selected Manufacturing Companies in Somali Regional State*. Ethiopia.
- Nuti. P., Kiemi. C., Gwatoko. T., & H. M. (2014). The Effects of Working Capital Management on Profitability. . *International Journal of Econmics, Finance and Management Sciences*. , 347-355.
- Padachi, K. (2006). Trends in Working Capital Management & Its Impact on Firms Performance: An Analysis of Mauritian Small Manufacturing Firms. *International Review of Business Research Papers, Vol.2, No.2* , 45-58.
- Samson, A. A., Mary, J., Yemisi, B.-F., & Erekpitan, I. O. (2012). The Impact of Working capital Management on the Profitaility of Small and Medium Scale Enterprise in Nigeria. *Research Journal of Business Managment, Iss.6(2)* , 6-69.
- Tobi, B. A., Osidero, A. T., & Kareem, P. H. (2013). Emperics of Liquidity & Profitability in the Nigerian Manufacturing Sector. *International Journal of Economics, Commerce & Management, Vol. IV,Issu.4* , 429-446.
- Woubshet. M. (2014, June). Impact of Working Capital Management on Firms Performance: The Case of Selected Metal Manufacturing Campanies. AddisAbaba, Ethiopia.
- Weston, J., & Brigham, E. (1977). *Essentials of Managerial Finance*. The Dryden Press.
- Weygandt, J. J., Kimmel, P. D., & Kieso, D. E. (2011). *Managerial Accounting Tools for Business Decision Making*. United States of America: Jonhan Wiley & Sons,Inc.