IMPACT OF WORKING CAPITAL MANAGEMENT ON THE PERFORMANCE OF AN ORGANIZATION
A STUDY OF SELECTED MANUFACTURING FIRMS

BY

Rekiya Eyiwuri ISMAILA
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BEING A RESEARCH PROJECT SUBMITTED TO THE POSTGRADUATE SCHOOL, AHMADU BELLO UNIVERSITY, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER DEGREE IN BUSINESS ADMINISTRATION (MBA)

DEPARTMENT OF BUSINESS ADMINISTRATION,
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AHMADU BELLO UNIVERSITY,
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DECLARATION

I hereby declare that this research has been solely conducted by me in the Department of Business Administration Ahmadu Bello University, Zaria. Any mistake therein is entirely my responsibility and all the secondary data reviewed were accordingly acknowledged by way of bibliography.

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Rekiya Eyiwuri, ISMAILA Date

CERTIFICATION

This is to certify that the Project titled; 'Impact of Working Capital Management on the Performance of an Organization' by Rekiya Eyiwuri, ISMAILA meets the partial regulation governing the award of the degree of Master of Business Administration (MBA) of Ahmadu Bello University, Zaria and is therefore approved for its contribution to knowledge.

MAL. MOHAMMED NAFIU BASHIR

_____	_____	_____
Chairman, Supervisory Committee	Signature	Date

PROF. BELLO SABO

_____	_____	_____
Head of Department	Signature	Date

_____	_____	_____
External Examiner	Signature	Date

PROF. HASSAN A. ZOAKA

_____	_____	_____
Dean postgraduate school	Signature	Date

DEDICATION

This research work is dedicated to Almighty Allah for His infinite mercies.

ACKNOWLEDGEMENT

I thank Almighty Allah for the successful completion of this work. My profound gratitude goes to my Supervisor Mal M.N. Bashir who despite his tight schedules of duties guide and assisted me to the successful completion of this work, also to the entire lecturers and staff of the department of Business Administration, Ahmadu Bello University, Zaria. My sincere thanks goes to my family, friends and all well wishers.

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ABSTRACT

The main objective of the study is to evaluate the impacts of working capital management on organization's performance. The study made use of both primary and secondary sources of data to obtain information, for the primary sources, questionnaire method was used, while for the secondary data, the use of text books and journals was adopted. The major findings of the research is that the efficient and effective working capital management has significant effect in improving the profitability position of banks by the analysis made from the respondents view. The study therefore recommends based on the findings that Management should ensure that operation stoppages, strikes etc are minimized since this brings about idle resources and subsequently underutilization, management should endeavour to ensure the reduction of bad debts, working capital resources should be optionally combined with other man and machine resources striking a balance between solvency and profitability to achieves of the organization, management should strive for more care on the assessment of the credit worthiness of customers by analysis past statement of debtors, proper supervision of working capital should be carried out to ensure effective and efficient utilization in an organization.

TABLE OF CONTENT

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Management of working capital is an important component of corporate financial management because it directly affects the performance of an organisation. Smith (1980) concluded that working capital management is important because of its effect on organization's performance and risk, and consequently its value. Similarly, Deloof (2003) indicated that the way working capital is managed might have a significant impact on performance of an organisation. The above studies point out that there is a certain level of working capital requirement, which potentially maximizes organization's returns. On the other hand, Kargar and Bluementhal (1994) mentioned that bankruptcy may be likely for organisations that put inaccurate working capital management procedures into practice, even though their performance is constantly positive.

Therefore, organisations must avoid receding from optimal working capital level by bringing the aim of profit maximization in the foreground. Hence, it is indirect contradiction to focus only on liquidity and consequently pass over performance to working capital management. Because, conservative liquidity policy may goes below optimal level of working capital requirement and treats the day to day operation of a business. Whereas, excessive levels of working capital can easily result in a substandard return on assets; while inconsiderable amount of it may incur shortages and difficulties in maintaining day-to-day operations. The ultimate objective of any firm is to maximize its profit. However, preserving liquidity of the firm is an important objective as well. The

problem is that increasing profits at the cost of liquidity can bring serious problems to the organisation. Therefore, there must be a tradeoff between these two objectives (liquidity and performance) of organisation. One objective should not be at the cost of the other because both have their own importance. If firms do not care about profit, they cannot survive for a longer period. In other round, if firms do not care about liquidity, they may face the problem of insolvency or bankruptcy. For these reasons managers of firms should give proper consideration for working capital management as it does ultimately affect the performance of firms. Indeed firms may have an optimal level of working capital that maximizes their value.

Large inventory and generous trade credit policy may lead to high sales. Large inventory also reduces the risk of a stock-out. Trade credit may stimulate sales because it allows a firm to access product quality before paying (Long, 1993 and Raheman and Nasr, 2007). Another component of working capital is accounts payables, Raheman and Nasr (2007) indicated that delaying payment of accounts payable to suppliers allows firms to access the quality of obtaining products and can be inexpensive and flexible source of financing. On the other hand, delaying of such payables can be expensive if a firm is offered a discount for the early payment. By the same token, uncollected accounts receivables can lead to cash inflow problems for the firm.

A popular measure of working capital management is the cash conversion cycle, that is, the time span between the expenditure for the purchases of raw materials and the collection of sales of finished goods. Deloof (2003) found that the longer the time lags, the larger the investment in working capital, and also a long cash conversion cycle might

increase performance because it leads to higher sales. However, corporate performance might decrease with the cash conversion cycle, if the costs of higher investment in working capital rise faster than the benefits of holding more inventories or granting more trade credit to customers.

In general, working capital management is not only improving financial performance in today's cash-strapped and uncertain economy, but it is the question of meeting firm's day to day operation. Therefore, it is a critical issue to know and understand the impacts of working capital management and its influence on firm's performance. However, as per the knowledge of the researcher, it is almost untouched in Nigeria or only very little research has been done in this area. This limited evidence in the context of Nigeria along with the importance of working capital management calls for research on their impacts on firms' performance. In light of the above points, the general objective of the study will be to examine or assess the impacts of working capital management on the performance of manufacturing share companies in Nigeria.

1.2 Statement of the problems

Working capital management is an important issue in any organization. This is because without a proper management of working capital components, it's difficult for the firm to run its operations smoothly. That is why Brigham and Houston (2003) mentioned that about 60 percent of a typical financial manager's time is devoted to working capital management. Hence, the crucial part of managing working capital is maintaining the

required liquidity in day-to-day operation to ensure firms smooth running and to meet its obligation (Eljelly, 2004).

Further, working capital management has been major issue especially in developed countries. As a result, in order to explain the relationship between working capital management and performance different researches have been carried out in different parts of the world especially in developed countries. However, despite the above importance this issue failed to attract the attention of researchers in Nigeria. Thus, while searching on internet, browsing through the books and journals the researcher didn't find directly related research topics carried out in Nigeria. Therefore, the researcher believed that, the problem is almost untouched and there is a knowledge gap on the area. In its effect most Nigerian company's managers thought regarding working capital management is, to shorten the cash conversion cycle (traditional views) to increase firm's performance. However, if firm has higher level of account receivable due to the generous trade credit policy, it would result to longer cash conversion cycle. In this case, the longer cash conversion cycle will increase performance and thus, the traditional view of managers cannot be applied to all circumstances. Hence, lack of proper research study on the area gives a chance for Nigerian company's managers to have limited awareness in relation to working capital management to increase firm's performance. Therefore, by keeping the above problem in mind, the study tried to find out the impacts of working capital management on firms performance.

1.3 Research Questions

i. Is there negative relationship between working capital management and organization’s performance?
ii. Is there a negative relationship between liquidity and organization’s performance?
iii. How a negative relationship between debt used by the firms and organization’s relationship?

1.4 Objectives of the study

The main objective of the study is to evaluate the impacts of working capital management on organization’s performance. Other objectives of the study are:

i. To evaluate any relationship between working capital management and organization's performance.
ii. To examine the negative relationship between liquidity and organization’s performance.
iii. To investigate whether there is a negative relationship between debt used by the firms and organization’s relationship?

1.5 Hypotheses of the study

Several statements of supposition can be made in view of the impacts of working capital management on organization’s performance. In light of the above research objective the following null hypotheses (H_0) that this study attempted to test:

H_{01}: There is no positive relationship between efficient working capital management and performance of firms'.

H_{02}: There is no significant relationship between liquidity and performance of firms.

H_{03}: There is no significance relationship between debt used by the firms and their performance.

1.6 Significance of the study

Much has been written and studied about working capital management and performance of the firm in different country, but this research add some insight about this issue related to Nigeria literature. Similarly, it benefits the top manager and policy makers of those selected companies regarding decision on optimum level of working capital, ways of managing it and overall policies on working capital management. And also it gives clear understanding about the relation between working capital components and corporate performance. Besides, the study helps as a guideline for those who conduct their study on similar topic and it gives brief information for the shareholders, prospective customers and creditors of a firm regarding performance in relation to efficient working capital management and policy. Finally, the study benefits the researcher to obtain new knowledge about the problem under study and gives clear picture about the discipline called research.

1.7 Scope of the Study

This study will focus mainly on the manufacturing companies in Nigeria on their working capital management in relations with their performance. The study will examine five manufacturing firms. This will cover the period of 2009 to 2014.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter will review literature base on the effect of working capital management on organization's performance. This will have topics like: theoretical review of the concept, concept of working capital, types of working capital, factors determining working capital requirements, working capital policy, performance and liquidity measures, relationship between liquidity and performance and review of related literature.

2.2 Concept of Working Capital

The term working capital implies company's investment in short term assets like cash, short term securities, accounts receivables and inventories (Weston and Brigham, 1977). Precisely, these assets are financed by short-term liabilities like accounts payable and short term borrowings; thus net working capital is defined as the difference between current assets and current liabilities. Working capital management is the decision relating to working capital and short term financing, and this includes managing the relationship between the company's short term assets and its short term liabilities. This enables the

company to continue operations and to have enough cash flow at its disposal to satisfy both maturing short-term debts and upcoming operational expenses, which is the major objective of working capital management.

The purpose of this chapter is to review the evidence on working capital management and performance measures of a firm. Hence, the chapter is arranged into three sections. The first section presents the theoretical review of working capital management while the second section reviews the empirical evidence pertaining to working capital management. Third, the section presents conclusions on the literature review and identifies the knowledge gap that this study attempts to fill in. finally, under section fourth, section present nature of manufacturing companies.

2.2.1 Components of working capital

The core concept of working capital has been subjected to considerable change over the years. A few decades ago the concept was viewed as a measure of the debtor's ability to meet his/her obligations in case of liquidation. The prime concern was with whether or not the current assets were immediately realizable and available to pay debts in case of liquidation. In applying this measure a one year period was frequently used to classify assets and liabilities as those due within one year for working capital purposes. In recent years, the focus has shifted from this liquidation point of view and the current emphasize shifted to the ability of the firm to pay its maturity obligations from the funds by current operations. In this sense, working capital is dynamic measure of the margin or buffer for meeting current obligations.

To understand working capital it is better to have basic knowledge about various aspects of working capital. To start with, there are two concepts of working capital known as gross and net.

Gross working capital (GWC): Gross working capital generally deals with overall corporate assets. It is also the total cash, and cash equivalent that a business has on-hand to run the business. Cash equivalents may include inventory, account receivable and investments, on marketable securities, which may be liquidated within the calendar year (Paramasivan and Subramanian, 2009). Generally, gross working capital is simply called as the total current assets of a firm.

Net working capital (NWC): it's the amount of assets or cash that remain after subtracting a company's current liabilities which refers to the claims of outsiders which are expected to mature for payment within an accounting year and include creditors for goods, bills payable, bank overdraft and accrued expenses from its total current asset (Brealey and Myers, 2006). This can be mathematically presented as:

In this equation net working capital may be positive or negative. A positive net working capital arises when current assets exceed current liabilities and a negative net working capital arises when current liabilities exceed current assets. According to Brigham and Houston (2003) both (positive or negative NWC) aspects have equal importance for management. Therefore, positive WC focuses the attention on the optimum investment in and financing of the current assets, while negative WC indicates the liquidity position of the firm and suggests the extent to which working capital needs may be financed by permanent sources of funds.

2.2.2 Types of working capital (WC)

Most businesses experience seasonal or cyclical fluctuations. For example, construction firms have peaks in the spring and summer, retailer's peak around Christmas, and manufacturers who supply both construction companies and retailers follow similar patterns. Similarly, all businesses must build up current assets when the economy is strong, but they then sell off inventories and reduce receivables when the economy slacks off. Hence, based on time, working capital may be classified into two important types as permanent and temporary working capital (Paramasivan and Subramanian, 2009) and briefly discussed bellow.

2.2.3 Permanent Working Capital: it's also known as fixed working capital and it refers to a minimum amount of investment in all working capital which is required at all times to carry out minimum level of business activities (Brigham and Houston, 2003). In other words, it represents the current assets required on a continuing basis over the entire year.

Further, working capital has a limited life and usually not exceeding a year, in actual practice some part of the investment in that is always permanent. Since firms have relatively longer life and production does not stop at the end of a particular accounting period some investment is always locked up in the form of raw materials, work-in-progress, finished stocks, book debts and cash. Investment in these components of working capital is simply carried forward to the next year. This minimum level of investment in current assets that is required to continue the business without interruption

is referred to as permanent working capital (Fabozzi and Peterson, 2003 p. 679). It's financed through long term debt and common stock.

2.2.4 Temporary Working Capital: it's also known as the circulating or transitory working capital. This is the amount of investment required to take care of the fluctuations in the business activity. Fabozzi and Peterson (2003 p. 678) they defined as a rises of working capital from seasonal fluctuations in a firm's business. Because firms do not have to maintain this form of working capital throughout in the year, or year after year, it may be better to use short-term (bank credit) rather than long-term sources of capital to satisfy temporary needs. In other words, it represents additional current assets required at different times during the operating year. For example, extra inventory has to be maintained to support sales during peak sales period (seasonal working capital). Similarly, receivable also increase and must be financed during period of high sales. On the other hand investment in inventories, receivables and the like will decrease in periods of depression (special working capital). Temporary working capital fluctuates over time with seasons and special needs of firm operations, whereas, permanent WC changes as firms sizes increases overtime. Further, temporary WC is financed by short term debt.

2.3 Factors Determining Working Capital Requirements

The total working capital requirement of a firm is determined by a wide variety of factors. These factors affect different organizations differently and they also vary from time to time. In general factors influencing working capital decisions of a firm may be classified as two groups, such as internal factors and external factors (Paramasivan and

Subramanian, 2009). The internal factor includes nature of business, size of business, firm's product policy, credit policy, and growth and expansion of business. The external factors include business fluctuations, changes in the technology, infrastructural facilities, import policy and the taxation policy. These factors are discussed in brief in the following lines:

2.3.1 Internal factors

These are factors that the companies will take in to account while determining the optimal level of working capital needed for the business concern by looking inherent factors related to the business. The working capital requirements of a firm are basically influenced by the nature and size of the business. Size may be measured in terms of the scale of operations. A firm with larger scale of operations will need more working capital than a small firm. Similarly, the nature of the business influences the working capital decisions. Trading and financial firms have less investment in fixed assets. But require a large sum of money to be invested in working capital. Retail stores, business units require larger amount of working capital, whereas, public utilities need less working capital and more funds to invest in fixed assets.

2.3.2 Firm's production policy

The firm's production policy (manufacturing cycle) is an important factor to decide the working capital requirement of a firm. The production cycle starts with the purchase and use of raw material and completes with the production of finished goods. On the other

hand production policy is uniform production policy or seasonal production policy, also influences the working capital decisions. If the company maintains continues or uniform production policy, there is a need of regular working capital. If the production policy of the company depends upon the situation or conditions like season, working capital requirement will depend upon the conditions laid down by the company and changing demand.

2.3.3 Firm's credit policy

The credit policy of a firm influences credit policy of working capital. A firm following liberal credit policy to all customers requires funds. On the other hand, the firm adopting strict credit policy and grant credit facilities to few potential customers will require less amount of working capital.

2.3.4 Growth and expansion of business

Working capital requirement of a business firm tend to increase in correspondence with growth in sales volume and fixed assets. A growing firm may need funds to invest in fixed assets in order to sustain its growing production and sales. This will, in turn, increase investment in current assets to support increased scale of operations. Thus, a growing firm needs additional funds continuously.

2.3.5 External factors

Some time firm's working capital requirement can be affected by external factor which will not be controlled through the business internal administration and management process and they are discussed as follows:

2.3.6 Business fluctuations

Most firms experience fluctuations in demand for their products and services. These business variations affect the working capital requirements. When there is an upward swing in the economy, sales will increase, correspondingly, the firm's investment in inventories and book debts will also increase. Under boom, additional investment in fixed assets may be made by some firms to increase their productive capacity. This act of the firm will require additional funds. On the other hand when, there is a decline in economy, sales will come down and consequently the conditions, the firm try to reduce their short-term borrowings. Similarly, the seasonal fluctuations may also affect the requirement of working capital of a firm.

2.3.7 Changes in the technology

The technological changes and developments in the area of production can have immediate effects on the need for working capital. If the firm wish to install a new machine in the place of old system, the new system can utilize less expensive raw materials, the inventory needs may be reduced there by working capital needs may be affected.

2.3.8 Taxation policy

The amount of tax to be paid is determined by the prevailing tax regulations and very often taxes have to be paid in advance. Hence, the tax policies of the Government will influence the working capital decisions. If the Government follows regressive taxation

policy, i.e. imposing heavy tax burdens on business firms, they are left with very little profits for distribution and retention purpose. Consequently the firm has to borrow additional funds to meet their increased working capital needs. When there is a liberalized tax policy, the pressure on working capital requirement is minimized. In general, if tax liability increases, it will lead to an increase in the level of working capital and vice versa.

In summary, firm's financial manager should have to take in to account the above determinants while deciding on the optimal level of working capital needed and the timing for day to day activities of the business operations.

2.4 Management of Working Capital (or Working capital management)

In order to understand the importance of working capital one has to understand the working capital cycle which is described as the core for working capital management. Arnold (2008, p.529-530) said that working capital cycle includes all the major dimensions of business operations. It is quite clear that a bad management of a single account in this cycle might cause a big trouble for the non living entity which might leads to its death. Therefore, the management of working capital and balance between components of working capital is extremely important for the smooth running of business.

Similarly, the basic aim of financial management is to maximize the wealth of the share holders and in order to achieve this; it is necessary to generate sufficient sales and profit. However, sales do not convert in to cash instantly. The time between purchase of

inventory items (raw material or merchandise) for the production and their conversion into cash is known as operating cycle or working capital cycle. Therefore, the following chart shows the framework of firm's working capital cycle:

The above working capital cycle reveals that funds invested in operations or activities are re-cycled back into cash. The cycle, of course, takes some time to complete. The longer the period of this conversion the longer is the operating cycle. A standard operating cycle may be for any time period but does not generally exceed a financial year. However, if it were possible to complete the sequence (working capital cycle) instantly, there would be no need for current assets (working capital). But, since it is not possible, the firm is forced to have current assets, because, cash inflows and outflows do not match in the business operations, the firm has to keep cash for meeting short term obligations through proper management of working capital components.

Therefore, working capital management deals with the act of planning, organizing and controlling the components of working capital (current asset and liability) like cash, bank balance, inventory, receivables, payables, overdraft and short-term loans. Paramasivan & Subramanian, (2009). Weston & Brigham (1977) defined working capital management as it is concerned with the problems that arise in attempting to manage the current asset, current liabilities and the interrelationship that exists between them.

Whereas, Smith (1980) noted that working capital management is the administration of the whole aspects of both current assets and current liabilities.

Generally, working capital management involves two basic questions: first, what is the appropriate amount of current assets, both in total and for each specific account, and

second, how should those current assets be financed? Therefore, a brief description regarding the various issues involved in the management of each of working capital components is discussed as follows:

1. **Receivable Management**

Businesses have either products or services to sell to their customers; they also want to maximize their sales. So, in order to increase the level of their sales they use different policies to attract customers and one of them is offering a trade credit. Trade credit basically refers to a situation where a company sells its product now to receive the payment at a specified date in the future. Fabozzi and Peterson (2003 p. 651) mentioned that when a firm allows customers to pay for goods and services at a later date, it creates accounts receivable or refers to trade credit. Account receivables (trade credit) also have opportunity cost associated with them, because company can't invest this money elsewhere until and unless it collects its receivables. More account receivables can raise the profit by increasing the sale but it is also possible that because of high opportunity cost of invested money in account receivables and bad debts the effect of this change might turn difficult to realize. Hence, it calls for careful analysis and proper management is compulsory task of company's credit managers.

Therefore, the goal of receivables management is to maximize the value of the firm by achieving a tradeoff between risk and performance. For this purpose, the finance manager has to obtain optimum (non-maximum) value of sales, control the cost of receivables, cost of collection, administrative expenses, bad debts and opportunity cost of funds

blocked in the receivables. Further, financial manager has to maintain the debtors at minimum according to the credit policy offered to customers, offer cash discounts suitably depending on the cost of receivables and opportunity cost of funds blocked in the receivables (Gallagher and Joseph, 2000). Indeed trade credit management has to look through cost and benefit analysis including credit and collection policies of companies in maintaining receivable.

2. Monitoring Account Receivable

Companies can monitor how well accounts receivable are managed using aging schedules and financial ratios. In aging analysis, a company's account receivables are classified into different categories based on number of days they are past due after sales such as 1 to 30 days, 31 to 40 days, 41 to 50 days and so on and it helps managers to get a more detailed picture of collection efforts. The schedule can represent the receivables according to how many there are in each age group or according to the total dollars the receivables represent in each age group. Hence, the higher the number of accounts or dollars in the shortest term groups, the faster the collection or efforts are made (Fabozzi and Peterson, 2003 p. 660).

Whereas, financial ratio can be used to get an overall picture of how fast credit manager collect accounts receivable. Therefore, the average collection period (ACP) represents the average number of days for which a firm has to wait before its debtors are converted into cash. It is calculated by dividing accounts payable by purchases and multiplying the result by 365 and written as:

Average collection period (ACP) = Receivables / (Sales/365)

This ratio measures the quality of debtors. A short collection period implies prompt payment by debtors. It reduces the chances of bad debts. Similarly, a longer collection period implies too liberal and inefficient credit collection performance. It is difficult to provide a standard collection period of debtors (Brigham and Houston, 2003, p. 691).

3. Inventory management

Inventory is an important component of current assets. It is the stock of physical goods for eventual sale. It consists of raw material, work-in-process, and finished goods available for sale. As is the case with accounts receivable, inventory levels depend heavily upon sales. However, whereas receivables build up after sales have been made, inventory must be acquired ahead of sales. This is a critical difference, and the necessity of forecasting sales before establishing target inventory levels makes inventory management a difficult task (Brigham and Houston, 2003, p. 707).

Inventory management refers to an optimum investment in inventories. It should neither be too low to effect the production adversely nor too high to block the funds unnecessarily. Excess investment in inventories is unprofitable for the business and both excess and inadequate investments in inventories are not desirable (Fabozzi and Peterson, 2003 p. 658). Hence, the firm should operate within the two danger points. Additionally, proper inventory management requires close coordination among the sales, purchasing,

production, and finance departments. The sales/marketing department is generally the first to spot changes in demand. These changes must be worked into the company's purchasing and manufacturing schedules, and the financial manager must arrange any financing needed to support the inventory buildup. Lack of coordination among departments, poor sales forecasts, or both, can lead to disaster (Brigham and Houston, 2003 p. 707). In general, the purpose of inventory management is to determine and maintain the optimum level of firm's investment on inventory. At the same time, it helps to hold the costs of ordering and carrying inventories to the lowest possible level.

As it can be discussed in the above section, it is not necessary for a firm to hold high level of raw material inventory, in fact a firm can order raw material on the daily basis but the high ordering cost is associated with firms' policy. Moreover, the delay in supply might stop the production. Similarly, firm can reduce its finished goods inventory by reducing the production and by producing the goods only to meet the current demand. However, such a strategy can also create trouble for the company if the demand for the product rises suddenly. Further, such a situation might cause the customer dissatisfaction and even a loyal customer can switch to the competitors brand. Therefore, the firm should have enough inventories to meet the unexpected rise in demand but the cost of holding this inventory should not exceed its benefit (Brealey and Myers, 2003, p.821). Companies want to keep the inventory at a level which maximizes the profit and this level is known as optimal level, but what is an optimal level of inventory for a company? In order to answer this question finance managers analyze the cost associated with inventory i.e. carrying cost and ordering cost using economic order quantity (EOQ) as follow:

Monitoring inventory management

Companies can monitor its inventory by looking through its financial ratios like that of monitoring receivables. Inventory turnover ratio in days (ITID) indicates the number of time the stock has been turned over sales during the period and evaluates the efficiency with which a firm is able to manage its inventory. This ratio indicates whether investment in stock is within proper limit or not (Brigham and Houston, 2003, p. 691). Hence, the ration is calculated by dividing inventory by cost of goods sold and multiplying with 365 days and depicted as follows:

Inventory Turnover in Day (ITID) = Inventory / (Cost of sales/365)

In general there is no rule of thumb or standard for interpreting the inventory turnover ratio. The norms may be different for different firms depending upon the nature of industry and business conditions. However the study of the comparative or trend analysis of inventory turnover is still useful for financial analysis.

4. Cash management

Brealey & 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. The answer to this question is that it provides more liquidity than marketable securities. Cash

should be considered as an inventory which is very important for the smooth running of the business. No doubt a company can earn some interest if cash is invested in some marketable securities but when it has to pay its liabilities it needs cash and in order to convert marketable securities into cash it has to pay some transaction cost. So, there is a fair possibility that cost of holding marketable securities might exceed their benefit.

Holding a cash reserve is justifiable for all the businesses but how much cash a company should have? It is a big and very important question because too little cash might push a company in a situation where it will not be able to pay its current liabilities. On the other hand having high cash balance will not produce any return. The minimum level of cash reserve depends on the ability of a company to raise cash when it is required, future cash needs and companies will to keep cash to safeguard future unexpected events. Companies also want to have enough cash reserve to exploit the investment opportunities available in the future but having a very high level of cash reserve can turn out to be an idle resource.

The maximum level of cash reserve depends on investment opportunities available in the future, return on these investments and transaction cost of making the investments (Gallagher and Joseph, 2000).

5. Accounts Payables management

Account payable is defined as a debt arising from credit sales and recorded as an account receivable by the seller and as an account payable by the buyer. Firms generally make purchases from other firms on credit, recording the debt as an account payable. Accounts payable is the largest single category of short-term debt, representing about 40 percent of

the current liabilities of the average nonfinancial corporation (Brigham and Houston 2003 Arnold (2008 pp.479-482) described that account payable is the cheapest and simplest way of financing an organization. Accounts payable are generated when a company purchases some products for which payment has to be made no later than a specified date in the future. Accounts payable are a part of all the businesses and have some advantages associated with it e.g. it is available to all the companies regardless of the size of the company and earlier payment can bring cash discount with it. Companies not only need to manage their account payables in a good way but they should also have the ability to generate enough cash to pay the mature account payables. This is because, in case if a company fails to generate enough cash to fulfill the mature account payables then such a situation will pass the negative signal to the market and it will directly affect the share price, relationship with creditors and suppliers. Hence, in this situation it will be difficult for the company to raise more funds by borrowing money or get more supplies from the suppliers. Such a financial distress will lead to the death of the non living entity.

Therefore, one way of monitoring accounts payables is by the Average payment period (APP) or day's payables outstanding ratio which measures the average length of time between the purchase of materials or labor and the payment of cash for supplies (Brigham and Houston 2003, p. 720). It can be calculated as:

Average Payment period (APP) = Payables / (Cost of Goods Sold/ 365)

In general, if a company has a small number of accounts payable days, it could mean that the company is paying the bills very early or is taking advantage of purchase discounts

(requiring early payment). On the other hand, if a company has a large number of accounts payable days, it could mean that the company has low cash flows not sufficient to pay bills on time.

6. Short term borrowings

These are the short term financing instruments which a company uses and it includes bank overdraft, commercial papers, bill of exchange, and loan from commercial finance companies and the like. All these liabilities have a maturity less than one year (Arnold, 2008 pp.474-79). One reason for which company should have a proper working capital policy is short term borrowings because a poor working capital policy might cause the cash distress as a result company might not be able to pay its short term borrowing liability. The consequence of this default can be destructive for a business because after such a situation a company will not be able to win the trust of other financial institutions to borrow more money, market will perceive this situation in a negative way and the value of the share will fall, suppliers and creditors might hesitate to enter in a new contract.

7. The cash conversion cycle (CCC)

Cash conversion cycle is a time span between the payment for raw material and the receipt from the sale of goods. Weston and Brigham (1977, P. 690) mentioned that firms typically follow a cycle in which companies purchase inventory, sell goods on credit, and then collect accounts receivable. For a manufacturing company it can be defined it more

precisely as, a time for which raw material is kept for the processing plus the time taken by the production process. And plus the time for which finished goods are kept and sold, including the time taken by the debtors to pay their liability, minus the maturity period of account payable. By this definition it is quite clear that longer cash conversion cycle required more investment in the current assets. Furthermore good cash conversion cycle (depend up on companies target) is helpful for the organization to pay its obligations at a right time which will enhance the goodwill of a company. On the other hand, company with poor cash conversion cycle will not able to meet its current financial obligations and will face financial distress. Cash conversion cycle is also used as a gauge to measure the aggressiveness of working capital policy. It is believed that longer cash conversion cycle corresponds to defensive working capital policy and shorter cash conversion cycle corresponds to aggressive working capital policy (Arnold, 2008, pp.530-31).

In order to calculate the CCC one has to first calculate average collection period, inventory turnover in day and average payment period (as discussed previously in this section). In deed the formula used to compute cash conversion cycle is represented as follows:

CCC = Average collection period + Inventory Turnover in day – Average Payment Period

In general, depend up on the company policy lowering CCC without increasing cost and reducing sales may be preferable for the firm to have a good position of liquidity.

2.5 Working capital policy

Working capital policy can be best described as a strategy which provides the guideline to manage the current assets and current liabilities in such a way that it reduces the risk of default (Afza & Nazir, 2007). Working capital policy is mainly focusing on the liquidity of current assets to meet current liabilities. Liquidity is very important because, if the level of liquidity is too high then a company has lot of idle resources and it has to bear the cost of these idle resources. However, if liquidity is too low then it will face lack of resources to meet its current financial liabilities (Arnold, 2008). Current assets are key component of working capital and the WCP also depends on the level of current assets against the level of current liabilities (Afza & Nazir, 2007). On this base the literature of finance classifies working capital policy into three categories as defensive or hedging, aggressive and conservative working capital policy (Arnold, 2008 pp.535-36) and discussed as follows:

Defensive policy: Company follows defensive policy by using long term debt and equity to finance its fixed assets and major portion of current assets. Under this approach, the business concern can adopt a financial plan which matches the expected life of assets with the expected life of the sources of funds raised to finance assets (Paramasivan and Subramanian 2009). Inventory expected to be sold in 30 days could be financed with a 30- day bank loan; a machine expected to last for 5 years could be financed with a 5-year loan; a 20-year building could be financed with a 20 year mortgage bond; and so forth (Weston and Brigham, 1977, P. 716).

Defensive policy reduces the risk by reducing the current liabilities but it also affects performance because long term debt offers high interest rate which will increase the cost of financing (Arnold, 2008 p.530). This means a company is not willing to take risk and feel it appropriate to keep cash or near cash balances, higher inventories and generous credit terms. Mostly companies that are operating in an uncertain environment prefer to adopt such a policy because they are not sure about the future prices, demand and short term interest rate. In such situation it is better to have a high level of current assets. Which means, keeping higher level of inventory in the stock, to meet sudden rise in demand and to avoid the risk of stoppage in production.

This approach gives a longer cash conversion cycle for the company. It also provides the shield against the financial distress created by the lack of funds to meet the short term liability but as the researcher discussed earlier long term debt have high interest rate which will increase the cost of financing. Similarly, funds tied up in a business because of generous credit policy of company and it also have opportunity costs. Hence, this policy might reduce the performance and the cost of following this policy might exceed the benefits of the policy (Arnold, 2008 p.530).

Aggressive policy: Companies can follow aggressive policy by financing its current assets with short term debt because it gives low interest rate. However, the risk associated with short term debt is higher than the long term debt. Paramasivan and Subramanian (2009) pinpointed that in aggressive policy the entire estimated requirement of current assets should be financed from short-term sources and even a part of fixed assets

financing be financed from short- term sources. This approach makes the finance mix more risky, less costly and more profitable. Furthermore, few finance managers take even more risk by financing long term asset with short term debts and this approach push the working capital on the negative side.

Managers try to enhance the performance by paying lesser interest rate but this approach can be proved very risky if the short term interest rate fluctuates or the cash inflow is not enough to fulfill the current liabilities (Weston and Brigham, 1977, P. 716). Therefore, such a policy is adopted by the company which is operating in a stable economy and is quite certain about future cash flows. A company with aggressive working capital policy offers short credit period to customers, holds minimal inventory and has a small amount of cash in hand. This policy increases the risk of default because a company might face a lack of resources to meet the short term liabilities but it also gives a high return as the high return is associated with high risk (Arnold, 2008 p.536).

Conservative policy: Some companies want neither to be aggressive by reducing the level of current assets as compared to current liabilities nor to be defensive by increasing the level of current assets as compared to current liabilities. So, in order to balance the risk and return these firms are following the conservative approach. It is also a mixture of defensive WCP and aggressive WCP. In this approach temporary current assets, assets which appear on the balance sheet for short period will be financed by the short term borrowings and long term debts are used to finance fixed assets and permanent current assets (Weston and Brigham, 1977 P. 718). Thus, the follower of this approach finds the moderate level of working capital with moderate risk and return. It is called as “low profit

low risk" concept (Paramasivan and Subramanian, 2009). Moreover, this policy not only reduces the risk of default but it also reduces the opportunity cost of additional investment in the current assets.

On the other hand apart from the above points the level of working capital also depends on the level of sale, because, sales are the source of revenue for every companies. Sales can influence working capital in three possible ways (Arnold, 2008 p.534-35).

a. As sales increase working capital will also increase with the same proportion so, the length of cash conversion cycle remains the same.
b. As the sales increase working capital increase in a slower rate.
c. As the sales increase the level of working capital rises in misappropriate manner i.e. the working capital might raise in a rate more than the rate of increased in the sale.

Company with stable sale or growing sale can adopt the aggressive policy because it has a confidence on its future cash inflows and is confident to pay its short term liabilities at maturity. On the other hand a company with unstable sale or with fluctuation in the sale can't think of adopting the aggressive policy because it is not sure about its future cash inflows. In such a situation adoption of aggressive policy is similar to committing a suicide. Hence, searching other method might be the best choice.

2.6 Performance and Liquidity Measures

Performance ratio is a measure of profit generated from the business and is measured in percentage terms e.g. percentage of sales, percentage of investments, percentage of

assets. High percentage of performance plays a vital role to bring external finance in the business because creditors, investors and suppliers do not hesitate to invest their money in such a company (Fabozzi and Peterson (2003 p. 733). There are several measures of performance which a company can use. Few measures of performance are discussed here:

Net profit margin (NPM): It calculates the percentage of each sale dollar remains after deducting interest, dividend, taxes, expenses and costs. In other words it calculates the percentage of profit a company is earning against it's per dollars sale. Higher value of return on sale shows the better performance (Gitman, 1999).

NPM = (Earnings available for common stakeholder / Net sales)*100

Return on asset (ROA): This ratio 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, P. 101). The higher value of ROA shows the better performance and it can be computed as follows:

ROA = (Earnings Available For Common Stockholders / Total Asset)*100

Gross operation profit (GOP): this ratio explains that how efficient a company is to utilize its operating assets. This ratio calculates the percentage of profit earned against the operating assets of the company (Weston and Brigham, 1977, P. 101).

Gross operating profit = (Sales – COGS) / (Total asset –financial asset)

On the other hand, Liquidity ratio measures the short term solvency of financial position of a firm. These ratios are calculated to comment upon the short term paying capacity of

a concern or the firm's ability to meet its current obligations (Fabozzi and Peterson, 2003 p. 729) and they are discussed as follows:

Current ratio: is defined as the relationship between current assets and current liabilities. It is a measure of general liquidity and it is the most widely used to make the analysis for short term financial position or liquidity of a firm (Fabozzi and Peterson (2003 p. 733).

Current ratio can be calculated by dividing the total current assets by total current liability. Current ratio = current asset / current liability

Acid test ratio or **quick ratio:** it is the true liquidity refers to the ability of a firm to pay its short term obligations as and when they become due. It is the ratio of liquid assets to current liabilities.

Quick ratio = Current asset – inventory / Current Liabilities

It is very useful in measuring the liquidity position of a firm. It measures the firm's capacity to pay off current obligations immediately and is more rigorous test of liquidity than the current ratio.

On the other hand, debt ratio is one part of financial ratio which is used for debt management used by different company. Hence, it is ratio that indicates what proportion of debt a company has relative to its assets. The measure gives an idea to the leverage of the company along with the potential risks the company faces in terms of its debt-load (Fabozzi and Peterson, 2003 p. 586). It can be calculated as dividing total debt by total asset.

2.7 Relationship between Liquidity and Performance

Finance manager has to take various types of financial decisions like investment decision, finance decision, liquidity decision and dividend decision, in different time. In every area of financial management, the finance manger is always faced with the dilemma of liquidity and performance. He/she has to strike a balance between the two (Eljelly, 2004). Liquidity means the firm has to have adequate cash to pay bills as and when they fall due, and it also have sufficient cash reserves to meet emergencies and unforeseen demands, in all time. On the other hand, Performance goal requires that funds of a firm should be utilized as to yield the highest return. Hence, liquidity and performance are conflicting decisions, when one increases the other decreases. More liquidity results in less performance and vice versa. This conflict finance manager has to face as all the financial decisions involve both liquidity and performance.

Creditors of the company always want the company to keep the level of short term assets higher than the level of short term liabilities; this is because they want to secure their money. If current assets are in excess to current liabilities then the creditors will be in a comfortable situation. On the other hand managers of the company don't think in the same way, obviously each and every manager want to pay the mature liabilities but they also know that excess of current assets might be costly and idle resource which will not produce any return. For example, having high level of inventory will raise warehouse expense. So, rather than keeping excessive current assets (cash, inventory, account receivable) managers want to keep the optimal level of current assets, to a level which is enough to fulfill current liabilities. And also managers want to invest the excessive

amount to earn some return. Hence, managers have to make a choice between two extreme positions; either they will choose the long term investments, investments in non current asset such as subsidiaries (equity), with high performance i.e. high return and low liquidity. On the other hand to choice short term investment with low performance i.e. low return and high liquidity.

However, creditors of the company want managers to invest in short term assets because they are easy to liquidate but it reduces the performance because of low interest rate. On the other hand, if the managers prefer the long term investment to enhance the performance then in case of default lenders or creditors have to wait longer and bear some expense to sell these assets because the liquidity of long term investment is low. In reality, none of the managers choose any of these two extremes instead they want to have a balance between performance and liquidity which will fulfill their need of liquidity and gives required level of performance (Arnold, 2008).

2.8 Nature of manufacturing companies

In its earliest form, manufacturing was usually carried out by a single skilled artisan with assistants and training was by apprenticeship. In much of the pre-industrial world the guild system protected the privileges and trade secrets of urban artisans. Before the industrial revolution, most manufacturing in the world was occurred in rural areas, where household-based manufacturing served as a supplemental subsistence strategy to agriculture (and continues to do so in places). Entrepreneurs organized a number of manufacturing households into a single enterprise through the putting-out system.

However, the market place of the twenty-first century is evolving into one of merging national markets, fragmented consumer markets, and rapidly changing product technologies in manufacturing industry. These changes are driving firms to compete, simultaneously, along several different dimensions: design, manufacturing, distribution, communication, sales and others. Although manufacturing has not been utilized as a competitive weapon historically, the market place of the twenty first century will demand that manufacturing assume a crucial role in the new competitive arena.

Progress in human society has been accomplished by the creation of new technologies in deferent industries and that is why last few years have witnessed unparalleled changes throughout the world. Rapid changes in the markets demand drastically shortened product life cycles and high-quality products at competitive prices. Customers now prefer a large variety of products and this phenomenon has inspired manufacturing firms to look for progressive computerized automation in various processes. Thus, mass production is being replaced by low-volume, high-variety production so as to maximize sale and there by performance.

Manufacturing firms have recognized the importance of flexibility in the manufacturing system to meet the challenges posed by the pluralistic market. The concept of flexibility in manufacturing systems has attained significant importance in meeting the challenges for a variety of products of shorter lead-times, together with higher productivity and quality.

The flexibility is the underlying concept behind the transition from traditional methods of production to the more automated and integrated methods. According to some

economists, manufacturing is a wealth-producing sector of an economy and the back bone of world economy.

To summaries, now a day's the international standard industrial classification (ISIC, 2003) defined manufacturing activity as "the physical or chemical transformation of materials or components into new products, whether the work is performed by power driven machines or by hand, whether it is done in a factory or in the worker's home, and whether the products are sold at the whole sale or retail. The assembly of the component parts of manufactured products is also considered as manufacturing activities".

2.9 Review of Empirical Studies

The previous section was presented the theories of working capital management focusing on components, types of working capital, determinant of working capital requirement including and working capital policies. This section reviews the empirical studies on the impact of working capital management on firms' performance. There are a number studies that assessed working capital management from the perspective of both developing and developed nations. For example, pioneer study by Mueller (1953) about corporate working capital and liquidity may be considered as the best-known study in this field (Samiloglu and Demirgunes, 2008). The difficulty, compounded due to the lack of any uniformity in definition of what is meant by "working capital" motivated him to study on corporate working capital and liquidity literature. Hence, the study was conducted using qualitative method to answer three problems towards which the paper

was directed. Thus are; “what is meant by corporate working capital, liquidity and sources of liquidity?” Indeed the study concluded that the term "working capital" should be coextensive with current assets and described by it functions as revolving capital. Further, the study noted that the nature of an asset is determined by its function and not by its name. On the other hand, the study pinpointed that the ordinary use of the term "liquidity" makes it more a problem of marketing than accounting and finance and hence, liquidity is a consequence of the dynamic function of satisfying social wants. Finally, the study concluded that, it is through working capital that source of liquidity is attained.

Grablowsky (1976) examined mismanagement of accounts receivable by small business in US firm and its impacts on success. Prior to his study in 1975 he was conducted a survey about US firms credit policies and reported that most firms moved an account from active in-house collection to the bad debt file between four to twelve months after the due date.

The survey also reveals that even if a customer became a slow payer or was occasionally delinquent, many retailers continued to extend credit to him or her. These signify the existence of collection problems in the US. Depend up on the above problem he was interested to study on the relationship of such policy on firm’s success. Grablowsky (1976) has showed as there is a significant relationship between various success measures and the employment of formal working capital policies and procedures. On similar study, Walker and Petty (1978) mentioned that managing cash flow and cash conversion cycle is a critical component of overall financial management for all firms, especially those who are capital constrained and more reliant on short-term sources of finance.

Long et al. (1993) developed a model of trade credit in which asymmetric information leads good firms to extend trade credit so that buyers can verify product quality before payment. Their sample contained all industrial (SIC 2000 through 3999) firms with data available from compustat for the three-year period ending in 1987 and used regression analysis. They defined trade credit policy as the average time receivables are outstanding and measured this variable by computing each firm's days of sales outstanding, as accounts receivable per dollar of daily sales. To reduce variability, they averaged days of sales outstanding and all other measures over a three year period. They found evidence consistent with the model. The findings were suggested that producers may increase the implicit cost of extending trade credit by financing their receivables through payables and short-term borrowing.

On the other hand Peel and Wilson (1996) examined working capital and financial management in the small firm sector of UK. They were primarily interested to investigate whether the cause of corporate failure is, due to lack of short term financing or inefficient management of working capital. As a result, the researcher used quantitative survey method and concluded that for small and growing businesses, an efficient working capital management is a vital component of success and survival; i.e. both performance and liquidity. They further assert that smaller firms should adopt formal working capital management routines in order to reduce the probability of business closure, as well as to enhance business performance. Given these peculiarities, they have stressed the efficient management of working capital, and more recently good credit management practice as being pivotal to the health and performance of the small firm sector.

Smith and Begemann (1997) emphasized that those who promoted working capital theory shared that performance and liquidity comprised the salient goals of working capital management. The problem arose because, the maximization of the firm's returns could seriously threaten its liquidity, and the pursuit of liquidity had a tendency to dilute returns.

This article evaluated the association between traditional and alternative working capital measures and return on investment (ROI), specifically in industrial firms listed on the Johannesburg Stock Exchange (JSE). The problem under investigation was to establish whether the more recently developed alternative working capital concepts showed improved association with return on investment to that of traditional working capital ratios or not. Results indicated that there were no significant differences amongst the years with respect to the independent variables. The results of their stepwise regression corroborated that total current liabilities divided by funds flow accounted for most of the variability in Return on Investment (ROI). The statistical test results showed that a traditional working capital leverage ratio, current liabilities divided by funds flow, displayed the greatest associations with return on investment. Well known liquidity concepts such as the current and quick ratios registered insignificant associations whilst only one of the newer working capital concepts, the comprehensive liquidity index, indicated significant associations with return on investment.

Shin and Soenen (1998) researched the relationship between working capital management and value creation for shareholders. The standard measure for working capital management is the cash conversion cycle (CCC). Cash conversion period reflects

the time span between disbursement and collection of cash. It is measured by estimating the inventory conversion period and the receivable conversion period, less the payables conversion period. In their study, the researchers used net-trade cycle (NTC) as a measure of working capital management. NTC is basically equal to the cash conversion cycle (CCC) where all three components are expressed as a percentage of sales. NTC may be a proxy for additional working capital needs as a function of the projected sales growth.

They examined this relationship by using correlation and regression analysis, by industry, and working capital intensity. Using a COMPUSTAT sample of 58,985 firm years covering the period 1975-1994, they found a strong negative relationship between the length of the firm's net-trade cycle and its performance. Based on the findings, they suggest that one possible way to create shareholder value is to reduce firm's NTC. To test the relationship between working capital management and corporate performance, Deloof (2003) used a sample of 1,009 large Belgian non-financial firms for a period of 1992-1996. By using correlation and regression tests, he found significant negative relationship between gross operating income and the number of days accounts receivable, inventories, and accounts payable of Belgian firms. Based on the study results, he suggests that managers can increase corporate performance by reducing the number of day's accounts receivable and inventories. De Chazal (1998) revealed that 60% enterprises suffer from cash flow problems. Narasimhan and Murty (2001) stress on the need for many industries to improve their return on capital employed by focusing on some critical areas such as cost containment, reducing investment in working capital and improving working capital

efficiency. Ghosh and Maji (2003) attempted to examine the efficiency of working capital management of Indian cement companies during 1992 - 93 to 2001 - 2002. They calculated three index values; performance index, utilization index, and overall efficiency index to measure the efficiency of working capital management, instead of using some common working capital management ratios. By using regression analysis and industry norms as a target efficiency level of individual firms, Ghosh and Maji (2003) tested the speed of achieving that target level of efficiency by individual firms during the period of study and found that some of the sample firms successfully improved efficiency during these years.

Other study by, Lyroudi and Lazaridis, (2000) used Greek food industry to examine the cash conversion cycle (CCC) as a liquidity indicator of the firms and tried to determine its relationship with the current and the quick ratios. Hence, the main objective of the study was to investigate the implications of the CCC in terms of performance, in-debtness and firm size. The results of their study indicate study showed that there is significant positive relationship between the cash conversion cycle and the traditional liquidity measures of current and quick ratios. The cash conversion cycle also positively related to the return on assets and the net profit margin but had no linear relationship with the leverage ratios.

Conversely, the current and quick ratios had negative relationship with the debt to equity ratio, and a positive with the times interest earned ratio. Finally, the study concluded as there is no difference between the liquidity ratios of large and small firms. In the same country, Lazaridis and Tryfonidis (2006) investigated the relationship between working

capital management and corporate performance of listed company in the Athens Stock Exchange. They conducted a penal study by using a sample of 131 firms listed on the Athens Stock Exchange for the period of 2001–2004. The result from regression analysis showed that, there is statistically significant relationship between performance, measured through gross operating profit, and the cash conversion cycle and its components (accounts receivables, accounts payables, and inventory). Based on the results, they concluded that managers could create value for shareholders by handling correctly handling the cash conversion cycle and keeping each different component to an optimum level.

Raheman & Nasr (2007) studied the effect of different variables of working capital management including average collection period, inventory turnover in days, average payment period, cash conversion cycle, and current ratio on the net operating performance of Pakistani firms. They selected a sample of 94 Pakistani firms listed on Karachi Stock Exchange for a period of six years from 1999 - 2004 and found a strong negative relationship between variables of working capital management and performance of the firm. They found that as the cash conversion cycle increases, it leads to decreasing performance of the firm and managers can create a positive value for the shareholders by reducing the cash conversion cycle to a possible minimum level.

Garcia-Teruel and Martinez-Solano (2007) collected a panel of 8,872 small to mediumsized enterprises (SMEs) from Spain covering the period 1996 - 2002. They tested the effects of working capital management on SME performance using the panel data methodology. The results, which are robust to the presence of endogenetic,

demonstrated that managers could create value by reducing their inventories and the number of days for which their accounts are outstanding. Moreover, shortening the cash conversion cycle also improves the firm's performance. On the other hand, Singh and Pandey (2008) had an attempt to study the working capital components and the impact of working capital management on performance of Hindalco Industries Limited for period from 1990 to 2007.

Results of the study showed that current ratio, liquid ratio, receivables turnover ratio and working capital to total assets ratio had statistically significant impact on the performance of Hindalco Industries Limited.

Samiloglu and Demirgunes (2008) study was aims to investigate the effect of working capital management on firm performance. In line with this aim, a sample of 5, 843 Turkish listed manufacturing companies in Istanbul Stock Exchange (ISE) for the period of 1998- 2007 are analyzed under a multiple regression model. Empirical results show that, for the mentioned sample and period, accounts receivables period, inventory period and leverage significantly and negatively affect performance of Turkish manufacturing firms, while firm growth (in sales) significantly and positively affect firms performance. However, it is also concluded that cash conversion cycle, size and fixed financial assets have no statistically significant effects on firm performance of Turkish manufacturing firms for the period of 1998-2007.

Afza and Nazir (2009) was made an attempt in order to investigate the traditional relationship between working capital management policies and a firm’s performance for a sample of 204 non-financial firms listed on Karachi Stock Exchange (KSE) for the

period 1998-2005. The survey study found significant different among their working capital requirements and financing policies across different industries. Moreover, regression result found a negative relationship between the performance of firms and degree of aggressiveness of working capital investment and financing policies. They suggested that managers could increase value if they adopt a conservative approach towards working capital investment and working capital financing policies.

Falope and Ajilore (2009) used a sample of 50 Nigerian quoted non-financial firms for the period 1996 -2005. Their study utilized panel data econometrics in a pooled regression, where time-series and cross-sectional observations were combined and estimated. They found a significant negative relationship between net operating performance and the average collection period, inventory turnover in days, average payment period and cash conversion cycle for a sample of fifty Nigerian firms listed on the Nigerian Stock Exchange. Furthermore, they found no significant variations in the effects of working capital management between large and small firms. On the same year, Mathuva (2009) examined the influence of working capital management components on corporate performance by using a sample of 30 firms listed on the Nairobi Stock Exchange (NSE) for the periods 1993 to 2008. He used Pearson and Spearman's correlations, the pooled ordinary least square (OLS), and the fixed effects regression models to conduct data analysis. The key findings of his study were that: i) there exists a highly significant negative relationship between the time it takes for firms to collect cash from their customers (accounts collection period) and performance, ii) there exists a highly significant positive relationship between the period taken to convert inventories

into sales (the inventory conversion period) and performance, and iii) there exists a highly significant positive relationship between the time it takes the firm to pay its creditors (average payment period) and Performance.

Amarjir B. Ado C. & Ifakale (2010) investigated the relationship between the working capital management and the firms' performance for a sample of 88 American manufacturing companies listed on the New York Stock Exchange for the period of 3 years from 2005-2007. They were primarily sought to extend Lazaridis and Tryfonidis's (2006) findings by testing with the same hypothesis. They found statistically significant relationship between the cash conversion cycle and performance, measured through gross operating profit. The study concluded that managers can create profits for their companies by handling correctly the cash conversion cycle and by keeping accounts receivables at an optimal level.

Finally, Wajahat and Hammad (2010) conducted the study with the purpose of exploring the relationship between working capital policy and performance of Swedish firms.

Furthermore this study was aimed to investigate the nature of relationship between working capital policy and component of cash conversion cycle. For the purpose of their study the researchers used a sample of 37 listed companies in the OMX Stockholm stock exchange over the period of five years from 2004-2008 and six regressions were run on 185 observations in SPSS software. The result of regression analysis shows that managers can't change the level of performance by adopting any of the working capital policy i.e. there exist no relationship between working capital policy and performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The chapter deals with research design, population of the study, sample size and sampling techniques, sources of data, techniques of data analysis

3.2 RESEARCH DESIGN

For the purpose of this research work, the descriptive and historical researches are going to be used. This is because of the fact that considering the nature of the topic, descriptive and historical method best suits it.

3.3 POPULATION OF THE STUDY

The population of the study constitutes the employees of GT Bank, (NSE fact book 2012). The total number of employees was 3,644. The employees were considered as respondents because they experienced the impact of motivation processes. The population of our study is 3,644.

3.4 SAMPLE SIZE AND SAMPLING TECHNIQUES

These are the processes of drawing sample from the population. They are the methods or procedures available for drawing or selecting a sample from large population. For the purpose of this study the researcher used Yamane (1967) sample size method. The total number of the employee is 3,644, according to Nigeria Stock Exchange Fact Book 2012.

Using Yamane (1967) sample size formula as follows:

The formula: $n = \frac{N}{1+N(e)^2}$

n = sample size = ?

N = Population size, = 3,644

e = level of precision. = 5 %

$$n = \frac{3,644}{1+3644(0.05)^2}$$

$$\frac{3644}{10.11}$$

= 360.44

= 360 approximately

3.5 SOURCES OF DATA COLLECTION

Data are recorded observations the phenomena being studied (Nachmias and Nachamias 1982). To make a sound research work, data needs to be sourced from the

appropriate sources and in required form. This process is fundamental if the findings of the work are to be relied upon.

3.5.1 Primary Data

The primary method is based mainly upon interview was though direct contact with individuals for information. The primary data is being adopted by means or oral interview, questionnaire and observation, which are discussed in method of data collection.

3.5.2 Secondary Method

Secondary data are data extracted from the works of other individuals, organization and so on. This kind of data can be collected through journal, lecture, notes, textbooks, newspapers, literatures, articutes and other document as well.

3.6 METHOD OF DATA COLLECTION

This is also referred to as the instruments of research or data collection instruments. They are so called, because they assist in collecting measuring and gathering of data, that are essential for the successful conduct of a research work.

Research instruments include questionnaires, interviews and published instruments. Each of these must be valid and reliable for the purpose intended. Validity has been established to an extent to which data collected are relevant to the problem of the research. No data need to be collected unless they are related to the problem. The data

must provide exactly the information that is sought from the respondents Imosili (1996). A has the liberty of using either a of the research instrument mentioned above.

However, for the purpose of the study the following would be relied upon.

a) Interviews
b) Questionnaires
c) Published instrument
d) Observation

3.7 TECHNIQUES OF DATA ANALYSIS

Coming to techniques of data analysis, tabular analysis was used, because of its convenience in compiling data in a form for easy reference, usually in chronological order.

Percentage was used because it is easy and involves the drawing of tables. And lastly ratio's were used to expressed the profitability position of Bank specifically BANKS. Also correlation was used to test the hypothesis.

3.8 JUSTIFICATION OF METHOD USED AND TECHNIQUES

As stated earlier, the methods of research used are historical and descriptive methods. Historical research is employed because the study warrants the use of books, journals and magazines in order to bring out the relationships intended to be studied vividly. This is necessary for the researcher's understanding and analysis.

The descriptive research is employed because it is the method which specifies the nature of given phenomenon since it gives a picture of a phenomenon. It is therefore, the most suitable method for ascertaining the nature and extend of inter – relationships that exist between the component of working capital. Descriptive research is also suitable for describing the implication of these relationships on financial decision of the firm.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

This chapter presents the analysis of the data and all the findings of the researcher. It also includes the presentation, analysis and interpretation of the various ratios applied. Presentation of data from the use of questionnaire and conclusions draw and then finally, the summary of findings. This chapter shows the discoveries the researcher has made with respect to working capital management.

4.2 DATA PRESENTATION AND INTERPRETATION

Data collected from respondents were analyzed item by item; information derived form the items in the questionnaire was presented in tables for easy test and comprehension.

Table One: Which level are you?

Response	**Frequency**	**Percentage**
Banking	30	75%
Manufacturing	-	-
Others	10	25%
Total	40	100%

Source: Questionnaire administered 2015

Table one above shows that 75% are respondents from banking sector, No responders from manufacturing while 25% are respondents from others.

Table Two: What cadre are you in this organization?

Response	**Frequency**	**Percentage**
Executive level	3	7.5%
Executive level	8	20%
Supervision level	16	40%
Others	13	32.5%
Total	40	100%

Source: Questionnaire administered 2015

In Table two above shows that 7.5% respondents are from executive level 20% respondent from management level, 40% respondent from supervision level and 32.5% respondents from others.

Table Three: Does banking sector attach importance to working capital management in making profit?

Response	Frequency	Percentage
Yes	35	87.5%
No	5	12.5%
Total	40	100%

Source: Questionnaire administered 2015

In table three above, it shows that 87.5% of the respondents are of the opining that banking sector attach importance to working capital management in making profit, while 12.5% of respondents did not agreed that banking sector attach importance to working capital management in making profit.

Table Four: Does poor working capital management lead to loss in banks?

Response	Frequency	Percentage
Yes	30	75%
No	10	25%
Total	40	100%

Source: Questionnaire administered 2015

From table four above, 75% of the respondents agreed that poor working capital management lead to loss in bank, while 25% respondents did not agreed.

Table Five: To what extent does poor working capital management has negative effect on the banks profitability?

Response	**Frequency**	**Percentage**
High degree	11	27.5%
Low degree	21	52.5%
Moderate	8	20%
Total	40	100%

Source: Questionnaire administered 2015

From table five above, 27.5% agreed that poor working capital management has negative effect on the banks profitability, 52.5% agreed that it is low degree while 20% agreed it is moderate.

Table Six: Do banks employ qualified personnel for effectiveness and efficiency.

Response	Frequency	Percentage
Yes	34	85%
No	6	15%
Total	40	100%

Source: Questionnaire administered 2015

Table six above shows, 85% agreed banks employ qualified personnel for effectiveness and efficiency, while 15% agreed that it is no.

Table Seven: Do financial resources maintained by the bank improved profit?

Response	Frequency	Percentage
Yes	36	90%
No	4	10%
Total	40	100%

Source: Questionnaire administered 2015

From table seven above, 90% agreed that financial resources maintained by the bank improved profit while 10% respondent agreed that it is no.

Table Eight: Do effective management lead to efficient utilization of resources?

Response	Frequency	Percentage
Strongly agree	8	20%
Agree	28	10%
Disagree	4	10%
Total	40	100%

Source: Questionnaire administered 2015

From table eight above, 20% are of the opinion that effective management lead to efficient utilization of resources, 70% agreed, while 10% of the respondents disagree.

Table Nine: Does availability of working capital lead to high productivity?

Response	Frequency	Percentage
Yes	38	95%
No	2	5%
Total	40	100%

Source: Questionnaire administered 2015

From table nine, 95% agreed that availability of working capital lead to high productivity while 5% of the respondent agreed that it is no.

4.3 TEST OF HYPOTHESIS

This paragraph provides the avenue for the hypothesis so formulated are tested in order to draw statistical inferences and the researcher made use of correlation technique.

The researcher chose profitability ratios and liquidity ratio to test the hypothesis.

The formular for the co-efficient of correlation is;

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum X2\left(\sum x\right)2x\sqrt{n\sum y2 - \left(\sum y\right)2}}}$$

Where

X = current ratio (liquidity ratio)

Y = Return on capital employed (profitability ratio)

Year	X	Y	XY	X^2	Y^2
1	97	6.2	601.4	9409	38.44
2	94	5.6	526.4	8836	31.36
	1919	11.8	11278.8	18245	69.8

$\sum X = 1919$

$\sum Y = 11.8$

$\sum XY = 1127.8$

$\sum X^2 = 18245$

$\sum Y^2 = 69.8$

Since

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{n\sum X2\left(\sum x\right)2x\sqrt{n\sum y2 - \left(\sum y\right)2}}}$$

$$r = \frac{2255.6 - 2253.8}{\sqrt{(36490 - 36481)x\sqrt{139.6 - 139.34}}}$$

$$r = \frac{1.8}{\sqrt{9\,x\,\sqrt{0.36}}}$$

$$r = \frac{1.8}{3X\,0.6}$$

$$r = \frac{1.8}{1.8}$$

R = 1 strong positive correlation

The correlation of current ratio and return on capital employed indicates a strong positive relationship (1).

Since the coefficient of correlation (r) should lie between 1 and +1. The study accept the positive hypothesis which state that efficient and effective working capital

management has significant effect in improving the profitability opposition of banks and reject the negative hypothesis which states that efficient and effective working capital management have no significant effect in improving the profitability position of banks.

4.4 RESEARCH FINDINGS

The result obtained from the study shows that the efficient and effective working capital management has significant effect in improving the profitability position of banks by the analysis made from the respondents view.

Referring to table 4.6.3 which state that “Does banking sectors attach importance to working capital management in making profit from the findings 87.5% of the respondents agree that it is yes while 12.5% did not agreed.

Referring to table 4.6.4 which state “Does poor working capital management lead to loss in banks? From the finding 75% agreed that it is yes while 25% agreed.

Referring to table 4.6.7 which states “Do financial resources maintained by the bank improved profit? From the finding 90% agreed that it is yes while 10% agreed.

Referring to table 4.6.9 which states “Does availability of working capital lead to high productivity? From the finding 95% agreed that it is yes while 5% disagreed, This agreed with the hypothesis earlier stated which is efficient and effective working capital management has significant effect in improving the profitably position of banks and disagreed with the negative hypothesis which states that “Efficient and effective

working capital management have no significance effect in improving the profitability position of banks.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY

A lot has been discussed on working capital management of banks selected for this research work. A clear examination of working capital management and what it entails have also been reviewed. The researcher believes that this approach has assisted in carrying out a meaningful research work. Working capital management were given, but for the purpose of this research work, the researcher has given more weight specifically to the important aspect of the management of current assets components for these industries in order to highlight the general overview of working capital which is the management of current liabilities

This research work has been focused toward critical evaluation of working capital management and control in commercial bank with particular reference to selected banks.

The literature review relating to the subject matter. In reviewing working capital concept is a very complex task as it entails management of day to day operations of the company.

And working capital components which are cash, receivables and inventory seems to posses certain characteristics which make them unique from other assets forms and tend to have effect on company’s several profitability and growth.

The methods used for the collection of data were questionnaire and ratio analysis. Because very little research has been done on this aspect of financial management of the organization under study. These are use of the profitability ratio, liquidity ratio , leverage ratio and investment ratio. These covered a period of two years for the organization.

From the analysis done in the previous chapter revealed that banks plc is on a forward match towards maintaining a maximum profitability peak. Statement of sources and uses of funds revealed that there was a very large in working capital between 2012 and 2013 year end.

5.2 CONCLUSION

In this project, an attempt has been made to examine the general tool for cash credits policy and controls for determining the profitability position of Banks.

One of the cash budgets where the optimal transaction cash was determined on the basis of cash receipts and cash disbursement, under the internally imposed conditions that the firm maintains a minimum cash balance. By varying the minimum cash balance, once cash or short term anticipated deficits. This is not withstanding, however every aspects of working capital management, as it effects the particular business, must be given due attention as only then can a business firm hope to achieve it set objectives,. The ability to manage working capital effectively depends to a large extent on the appropriate mix of control measures for the components of working capital.

Credit and collection policies encompass the quality of account accepted, the credit period extend the cash discount in each case, the credit decision involves a trade off between the additional profitability and the cost resulting from a change in any of these elements. By liberalizing the quality requirement for accounts, the firm hopes to make more on additional sales than it spends to carry the additional sales is spends to carry the additional bad debt losses. To maximize profits arising from credit and collection policies the bank should vary these policies jointly until an optimal solution is obtained. These variations can be accomplished through simulation, once the functional relationships are specified. The firm's credit and collection policy together with its credit and collection procedures determines the magnitudes and quality of its receivable position in determining the profit.

Suffice to say that "theories are seldom useful unless and until they are put to practice", one would infer that most of the theoretical framework discussed in the early part of this study are operational in banks.

5.3 RECOMMENDATIONS.

In view of various review and analysis carried out, the following recommendations are proffered:

i. Management should ensure that operation stoppages, strikes etc are minimized since this brings about idle resources and subsequently underutilization.

ii. Management should Endeavour to ensure the reduction of bad debts.

iii. Working capital resources should be optionally combined with other man and machine resources striking a balance between solvency and profitability to achieves of the organization.

iv. Management should strive for more care on the assessment of the credit worthiness of customers by analysis past statement of debtors.

v. Proper supervision of working capital should be carried out to ensure effective and efficient utilization in an organization.

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